

Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. XCV No. 6 }
Weekly. }

BALTIMORE, FEBRUARY 7, 1929.

{ Single Copies, 20 Cents.
\$6.50 a Year. }

Open Sessions of the Federal Reserve Board Should Be Demanded by Congress.

WHILE the MANUFACTURERS RECORD does not by any manner of means agree with all of the positions taken by Senator Norris, we do heartily commend one statement recently made by him in regard to secrecy in governmental transactions. In the course of his statement Senator Norris said:

"The transaction of public business in secret, where hundreds of millions of dollars are involved and where the happiness and contentment of more than a hundred million people are directly concerned, is contrary to every fundamental principle underlying the perpetuity of a democracy. There is no more reason why a question of this importance should be settled in secret than that the Senate should transact any other business in secret session." And he added: "Is there any reason in justice or morals why the final judgment of the Senate, as disclosed by the roll call, should not be given as full and complete publicity as the vote upon any other question coming before it?" And much more of the same kind.

Ever since the deflation campaign of the Federal Reserve Board the MANUFACTURERS RECORD has insisted that the discussions and the decisions of that Board should be open to the public. The Federal Reserve Board has a power so vast that it is almost incomprehensible to people who have not studied the situation. One-half the time its members are really uncertain as to how to act and we doubt not that at the present moment some of them are entirely up in the air as to what is the best policy to be pursued in connection with the financial interests of this country and of the world—for the Federal Reserve Board has a tremendous influence for good or evil on world affairs. Its deliberations are in secret; its decisions are in secret, and the public knows little or nothing of what its decisions are until some particular matter is given publication.

When, in May, 1920, the Federal Reserve Board and members of the Advisory Council and of the branch banks, after a day of deliberation in secret session definitely planned for a continuation of the deflation campaign then under way, the meeting was closed with the statement from Governor Harding that everything that had been said that day must be regarded as confidential, and that when the newspaper people called on him for information he would turn them off by discussing the weather or something else. That outrageous blunder, or almost crime it might be called, upon the American people would have been shorn of much of its evil if the entire discussion that had taken place that day had been open to

the public and fully reported by the newspapers. Not until nearly three years after that meeting were the full reports published, and the MANUFACTURERS RECORD was the first paper in the country to be able to do this.

Since then we have constantly advocated open meetings of the Board, although we know full well that in many financial matters bankers feel there must be extreme secrecy until their plans are consummated. In regard, however, to the Federal Reserve Board it should be borne in mind that here is an organization of seven men that have had greater power conferred upon them by legislative enactment to shape the finances, and thus the business of a country, than was ever before given to any similar number of men in the world's history. Following the precedent of bankers generally, this Board holds its sessions in the strictest secrecy and no word of the discussion or of the vote, pro or con, on any particular subject is ever allowed to reach the public. Discount rates are raised or lowered, but nobody outside of the Board knows why these actions are taken, and nobody knows who voted for or against them, and the reasons therefor.

The Supreme Court listens to the arguments pro and con on any question brought before it, and the Interstate Commerce Commission does the same. But here is a Board that more directly affects the business interests of this country and of the world than either the Supreme Court or the Interstate Commerce Commission, vast as are the powers of the latter organization, but nobody can appear before that Board and favor or oppose proposed action.

It is useless to say that conditions are somewhat different. That is an excuse, but not a reason. At the present time the Board, we are quite sure, is very uncertain as to many matters that are before it, perplexed as to how to deal with some of the financial problems connected with Europe; but it dares not discuss these things openly and thus permit men of affairs and bankers generally to know what are the arguments pro and con on the great issues now before the Board, and in that way before the world.

The action of the Federal Reserve Board in 1919 and 1920 "wellnigh wrecked the universe," and our farmers are still suffering from the terrific decline in the value of their lands and their farm products by reason of the action of the Board at that time. Some of this might have been prevented, doubtless much of it could have been prevented, if the public had known that it was the definite purpose of the Federal Reserve Board to break down prices by a deflation campaign, and at the same time to encourage the railroads to increase their freight rates. These are things that the public knew nothing about and, therefore, business men, farmers and others,

could not prepare to meet the fearful crash that was ahead of them.

In the light of what has been done and what has been left undone, if the Federal Reserve Board will not now open its meetings to the public, Congress should compel this to be done, despite all the protests that will be made by the members of the Board and the big financiers who are doubtless generally well advised as to what the Board is doing, or will do, in advance of the public at large.

THE TARIFF ISSUE BREAKING DOWN POLITICAL AND SECTIONAL BARRIERS.

WITH the agricultural and industrial interests of the South wisely and eagerly clamoring for a protective tariff, it is not surprising that the Associated Press could recently send out a dispatch from Washington in which, after referring to "the unusual spectacle of Southern Democrats pleading for higher protection from foreign competition," it added: "High tariff advocates in the Republican ranks were eager to offer their aid to the Southern members, especially, they asserted, in view of the results of the recent election in the States below the Mason and Dixon line."

For years, there has been a desire on the part of hundreds of thousands of people in the South for a protective tariff. Individual interests have sought unceasingly to secure protection to agricultural, mineral and industrial interests, but these demands have been largely defeated by the determination of Southern representatives in Congress to stick to their free trade theories. To a large extent, the South has thus been betrayed by its own representatives, who thought unwisely that the South was free trade in sentiment. Now that Democratic Congressmen are realizing that the South has a right to demand protection for its agricultural, mineral and industrial interests, and that it is making this demand, Democratic Congressmen are uniting with Republican Congressmen in working for a broad, general protective tariff. No wonder, under the circumstances existing, that the Republicans are ready to co-operate freely with Southern Democrats in this demand. It must, however, be insisted that the so-called raw materials of the South, the minerals and other things of this section receive protection, as well as the manufactured products into which they enter. Northern manufacturers must be ready to accord to the raw materials of the South the same decree of protection that they demand for their finished products.

The changed conditions that have been brought about by this general demand for an upward revision of the tariff, the widespread interest aroused throughout the South in a tariff to protect its interests, the recent election which gave several Southern States to Mr. Hoover, all will mean, when taken into combination, the gradual elimination of sectional interests and the broadening of the spirit of the whole country. As the barriers which have to some extent separated the sections are breaking down, there will come a broader spirit of nationalism, which will be of immeasurable value to the South; for, no longer will this section be regarded as a definite part of America bound unalterably to any one party. Freedom of thinking and freedom of voting will be a blessing to the Democratic party, as well as to the Republican. It will mean henceforth that practically every State will be debatable ground and that the policies and the men which will best serve the interests of the whole country will be the ones which can be advocated in the North and West and South alike.

FREIGHT RATES UNFAIRLY MADE "EQUALIZERS."

FURTHER indication of hardship imposed on the South through the general policy of the Interstate Commerce Commission to wipe out, through freight rates, the geographical or other natural advantages of any individual section or community, and so to place all sections on an artificial parity, comes to light in a statement by A. J. Maxwell, chairman of the North Carolina Corporation Commission. The same view was taken by Bolling H. Jones, chairman of the board of the Fulton National Bank, both addressing the Atlanta Freight Bureau.

Explaining that "the level of rates in proportion to mileage on commodities shipped from Atlanta to certain western points is higher than the rates from Chicago to these same points," Mr. Maxwell further said:

"If the southeastern rail carriers are not permitted to maintain rates on the same level with their competitors in the North and East, it will mean the further industrial development of those sections at the expense of the South; for the greatest development of industries will be in the territory having superior transportation advantages."

To which Mr. Jones added that Southern manufacturers, simply because they possessed certain natural advantages over their Northern rivals, such as cheaper labor, proximity to raw materials and lower taxes, are being penalized in their competition with Northern manufacturers by discriminatory freight rates.

An illuminating result of the Interstate Commerce Commission's procedure is given in a letter to the MANUFACTURERS RECORD from a manufacturing concern in the South, which says that "the railroads have localized" its territory, and continues:

"It is unfortunate when any organization or set of organizations are in a position where they can disrupt and disorganize a business in the way the enormous advances in freight rates have affected our business."

That is to say, areas and corporations in areas favored by natural advantages are forced to pay much higher rates than distance alone would entail, so that other areas and business concerns will artificially be relieved of the natural handicaps and all will be placed on a suppositiously equal basis. As a matter of fact, such a policy is more destructive to the former areas than it is beneficial to the latter type.

By what right or legal authorization the Interstate Commerce Commission presumes to penalize any industry or business concern or area through the imposition of unreasonable freight rates, and so to unfairly aid competitors in other sections, the average layman cannot well figure. An interpretation of this point is expected from the Supreme Court of the United States and, if it be decided that this Government agency does lawfully enjoy that prodigious power, it is understood that Congress will be asked to deprive the Commission of such dictatorial authority.

For the South, this procedure of enforcing artificial parity through the medium of freight rate juggling is particularly oppressive and costly. Favored, as Mr. Jones said, by proximity of raw materials and abundance of fine labor, and in many instances by geographical and other natural conditions, the South, very largely, is not permitted to enjoy its advantages but, through freight rates, is robbed of its natural blessings.

"Oklahoma in the past has suffered in competition with other States due to higher freight rates," says a survey of that state prepared by Lockwood, Greene & Co., Inc., engineers, at the instance of United States Senator Pine. Through proceedings instituted by the Corporation Commission of the state, these rates were adjusted, and: "Location of new factories and industries within the state, resulting from the new

rates, have already been reported to us," the Commission says.

Probably the South is not the only section that suffers from this reversal of the relation between distance and "parity." No doubt other sections and areas and business concerns experience the same unfair stimulation of competition which the Interstate Commerce Commission policy generates. Either the Interstate Commerce Commission has legal power to nullify the God-given advantages of an area, or it has not. If it has, that power should be taken from it. If it has not, it should be compelled at once to discontinue its exercise.

COL. W. H. SULLIVAN.

IN the passing of Col. W. H. Sullivan, vice-president and general manager of the Great Southern Lumber Company, the entire South suffered a heavy loss. Col. Sullivan was one of the men who early appreciated the importance to his section of the perpetuation of its forest wealth, and for many years, wherever the reforestation of barren Southern pine lands is discussed, or wherever the perpetuation of pine forests is practiced, Col. Sullivan's name will be remembered with gratitude and respect. Active as he was in various fields, it was his contribution to the great work of putting Southern pine forest culture on a sound working basis that will constitute his most lasting monument. To Col. Sullivan the Southern pine lumber, the pulp and paper and the naval stores industries owe a huge debt. Through them and their great and intricate ramifications in Southern economy, he was a benefactor, not alone of the Southern pine belt, but through it, of the nation. Further details in regard to the life work of Col. Sullivan will be found on page 90 in this issue.

AN INTERESTING VIEW OF THE INDEBTEDNESS OF THE ALLIES TO THE UNITED STATES.

FREDERICK W. PEABODY of Ashburnham, Mass., who organized the "American Association Favoring the Reconsideration of the War Debts," has recently issued a pamphlet entitled "The Prime Ministers to the President." It consists of an imaginary letter from the Prime Ministers of Great Britain, France, Belgium and Italy to the United States setting forth the reasons why in Mr. Peabody's view there should be a reconsideration of the indebtedness of the Allies.

The cover page carries strong statements from General Pershing, General O'Ryan and General Harbord—all of whom were in intimate touch with the whole situation in Europe during and since the war—strongly urging that these war debts have a full and frank reconsideration.

Whatever the views of the readers of this paper as to the wisdom of this readjustment or reconsideration, no one who wants to be perfectly fair should fail to get a copy of this pamphlet, which is distributed free, and study the views expressed by Mr. Peabody which, as he says, are in the shape of an imaginary letter from the Prime Ministers to the President of the United States.

The pamphlet also contains a list of the Advisory Council of the association, numbering many of the foremost business men, publicists and others in the United States, including bankers, lawyers, physicians, Army officers and others.

The war tremendously stimulated the industrial life of America. It pushed America to the forefront as the financial center of the world. It lifted wages to a higher plane than ever before, and these high wages have been of enormous benefit to the entire country. Here and there, of course, many losses were sustained, but this imaginary statement of the case from the Prime Ministers, written by Mr. Peabody, presents the whole subject in such an illuminating way that it should be studied by every man and woman who seeks to know the truth, regardless of where the truth may lead.

UNDER HOOVER, THE JADWIN PLAN MUST BE REVIEWED.

THE task of controlling the flood waters of the Mississippi River is admittedly the greatest engineering problem that has ever been attacked in this country. In cost, it will probably top one billion dollars. In complexity, neither the Panama Canal nor any other project we have ever undertaken offers an adequate comparison. In magnitude of work involved, in the far-flung scene of operations and the enormous area, population and property values directly affected, no other task approaches it. A great question of national welfare is at stake, and the problem involved is one demanding the co-ordinated effort of the best engineering brains of the country. In the face of these impressive facts, the engineering profession of the country, as a group, should be vitally concerned about any plan for Mississippi flood control and in discussion of methods for carrying out so great an undertaking.

General Jadwin, chief of the Engineer Corps of the Army, has submitted a plan which is known in informed circles to have excited strong disapproval among some of his ablest engineer officers; yet these officers are said to be muzzled by rigid army discipline and the public denied the benefit of their opinions. The plan has been severely criticized, so far as we know, by every one of the engineers—some of them men of national and even international repute—consulted by Congress, but their criticisms apparently have been ignored by General Jadwin, who claims that his plan remains unpunctured, while the criticisms have been strangely unheeded by Congress and by the body of civilian engineers.

Occasionally there develop situations so critical, so fraught with immense peril, that traditions of conservatism, of speaking out only when employed to do so, must be ruthlessly cut away like the tangled rigging of a storm-dismasted vessel. If ever the civilian engineers of this country faced such a situation, they are squarely up against it now, and they must act or stand convicted of indifference in the face of the greatest problem their profession has ever met. While some of the ablest of their number, when called upon for opinions, have condemned the Jadwin plan as based on insufficient data, as prepared in frantic haste and as containing dangerous experiments, civilian engineers as a body have remained passive. They must take the initiative. In view of the grave discredit that has been cast upon the plan, its author should be the first to demand a thorough and impartial review by a board of such high standing as forever to absolve him of any suspicion of negligence, carelessness or incompetence, in its preparation. His failure to do so lays him liable to the suspicion that he himself fears its unsoundness and dares not submit it to review. Under these circumstances it is unthinkable that the great body of civilian engineers should let it go unchallenged.

But how, they may ask, are they to challenge it? Individually? That would be asking too much. Deluge their Senators and Representatives with protests? This short session of Congress is jammed with legislation, and a proposal for a review of the Jadwin plan might have no chance. But there is one way in which it can probably be brought about. A famous engineer will soon become Commander in Chief of the Army, and therefore of the Engineer Corps. The American Engineering Council was created by him to be the voice of the combined best brains of its profession, and probably above all other engineering bodies enjoys his respect and confidence. If the Engineering Council should brand the Jadwin plan as unsound or merely as requiring a thorough and impartial investigation, Mr. Hoover in all probability would arrange for such review, and he would know how best to go about it. A sound plan has nothing to fear from such a review as we propose. The suspicion and the bitter opposition that confront the Jadwin plan can never be overcome without it.

BALTIMORE PUSHING TO THE FOREFRONT.

FEW cities in America are making such industrial strides and attracting such attention from great industries of the country as Baltimore is now doing. The location in the city of the Western Electric Company—whose initial plant as now contracted for is to cost over \$22,000,000, and reported by those associated with the company as to employ eventually about 25,000 men—has been closely followed by preparations for building the \$4,000,000 soap factory of the Procter & Gamble Company, a concern doing a business of over \$200,000,000 a year. A great airplane factory also will be established in Baltimore, it is stated, by Glenn L. Martin, one of the leading aircraft builders of the country.

Every day gives evidence of new movements, significant of the great future of the city. The erection of the tremendous 32-story building of the Baltimore Trust Company, occupying one of the most conspicuous corners and fronting on three streets, is another illustration of the confidence of local people and their realization that the growth of the city will take care of the increasing office room being provided by different buildings. The opening of the new year saw the completion of the \$6,000,000 Lord Baltimore Hotel, one of the outstanding projects of the country.

Development of the fidelity and bonding companies and commercial credit organizations is making Baltimore a leading city of the country for this phase of financial operations.

Industrial activities and financial expansion are, therefore, going hand in hand, and commercial advancement keeps pace.

The growth of Baltimore's foreign trade and the development of its coastwise business very nearly, if not quite, match the industrial and financial progress under way. The enormous plant of the Bethlehem Steel Corporation, probably the largest combined steel and shipbuilding plant in the world, representing an investment of over \$100,000,000, is an outstanding feature of Baltimore's industrial life. Moreover, several years ago one of the leading officials of the United States Steel Corporation told the MANUFACTURERS RECORD that he regarded Baltimore as the best port in the United States from which to export their products made in Pittsburgh and the surrounding territory.

The proposed building of an \$11,000,000 bridge across the Chesapeake Bay connecting Baltimore with the Eastern Shore of Maryland, is another advance movement.

The Pennsylvania Railroad proposes, as soon as the railroad and the city can adjust their differences on how to electrify its lines in Baltimore, to spend about \$22,000,000 in the electrification of the road through Baltimore, and in the development of other facilities.

But the things mentioned are only a few of the great and dominating factors which are pushing Baltimore to the front and bringing about a condition that even Baltimoreans themselves do not comprehend, except those in direct touch with these movements. These activities mean, however, that the city is to be one of the foremost industrial, commercial and financial centers of America. And some day when this fact breaks upon the full knowledge of Baltimore people and of the country at large, there will come about a progress amazing to the Baltimore people themselves, and a progress which may yet match the wonderful growth of Detroit. As the leading great city standing midway between the North and the South, Baltimore will share in the progress and prosperity of both sections. More and more it will be a meeting place for the vastly increasing trade and the wealth of the North and the South. Its future is assured as one of the pre-eminently great cities of America.

Since the foregoing was written the manufacturing census of Baltimore, covering the year 1927, has been released by the Department of Commerce. These preliminary figures show there were 2075 manufacturing establishments in Baltimore with a total output valued at \$702,053,762, while the

cost of materials was \$431,648,630. The average number of wage earners in Baltimore's industries in 1927 were 83,285 and the aggregate wages paid amounted to \$94,078,374. According to H. Findlay French, director of the Industrial Bureau of the Baltimore Association of Commerce, Baltimore's manufactured products in 1927 were of record value, being \$24,000,000 greater than the 1925 output. These figures cover solely Baltimore City and do not include the outlying plants of the Bethlehem Steel Company and others surrounding the city, which substantially add to the productive and producing power of the territory of which Baltimore is the center.

ARE BANKERS AND BUSINESS MEN GENERALLY AWAKE TO THE IMPORTANCE OF ENCOURAGING AGRICULTURE?

A LEADING business man of the central South, in a letter to the MANUFACTURERS RECORD, taking the ground that there can be no general prosperity without successful agriculture, in the States where so large a proportion of the population is rural, closes his letter with the following statements:

"The attitude of business and banking generally in the South is not along the lines of building up a constructive policy toward agriculture, and agriculture necessarily lags behind, with all the attention being paid to the industrialization of the South.

"There is no subject worthy of greater thought and consideration in the South, today, than the necessary change in the attitude of business and banking toward agriculture. There is too much effort to maintain the old agricultural system, and business based thereon, instead of recognizing the changed conditions and the necessity for the extension of constructive credit to farm people. The writer does not necessarily believe that the Southern farmer needs more credit than he has had in the past. In fact, he has had too much of the wrong kind of credit for many years past. It is true that the farm folks need education, but it is even truer that the banks and business men financing agriculture in the South need education fully as much, if not more so, than does the farmer."

Much of what is said in this letter is unquestionably true. Here and there, business men, merchants, manufacturers and bankers have taken a very active part in trying to bring about better agricultural conditions, but throughout the South this has not been done as freely as it should have been done. Many business men, although realizing their dependence on profitable agriculture for success in their own line, have somehow not felt called upon to organize the towns and cities in which they are located in a direct campaign for bettering farm conditions.

Too many land owners, operating their property on the tenant system, make no effort to encourage their tenants to raise at home their food and feedstuffs, and too many merchants are more interested in selling Western produce to the farmers, tenants and land owners alike, than they are in developing a home market for home raised products. The large land owner feels that unless he can have his tenants raise cotton his income will be uncertain, and whether the price is high or low most land owners do what they can to encourage tenants to raise cotton, for in this way even when the price is low they will get some income on their investment. Many land owners are unwilling to make longtime leases to tenants, and thus the tenants have no encouragement to improve the soil or better their living conditions, never knowing how soon they may have to change for some other farm.

There is a great agricultural problem in the South. Here and there it is being solved, and the men who are solving it are setting an example for all other business men of the South.

Southern Products, Natural and Manufactured, Seek Tariff Protection.

By GEORGE GARNER.

Washington, February 2.

No requests for protection in the prospective Tariff bill have been of deeper interest to the members of the Ways and Means Committee than those from the South, embracing, as they have done, both natural and manufactured products. And this interest has been accentuated by the return of the South to its original position as a pro-tariff section. Beyond this, it has been significant that friendly feeling between the manufacturing and agricultural interests has replaced any feeling of distrust or rivalry which may have prevailed between them; now they act in co-operative spirit, and their reciprocal regard must inevitably redound to the welfare of the South.

Spokesmen for and from the South have been numerous at the hearings, and they have talked in convincing language. Probably not a product of the South, animal or vegetable or mineral or fabricated, has not applied for some meed of protection under an adequate American tariff and the representatives of each interest have supported their arguments with facts and figures. Three days were given to the cotton growing and cotton textile industries, and the members of the committee heard the speakers with undisguised interest. As ranking minority member of the committee, Representative John N. Garner of Texas asked helpful questions, and frequently Representatives Collier of Mississippi, Crisp of Georgia, and other Democrats, and Treadway of Massachusetts and Bacharach of New Jersey, Republicans, also brought out information of value to the South. Indeed, sectionalism apparently was forgotten in the businesslike discussions.

Of especial interest was the appearance of Representative William M. Whittington of the Third district of Mississippi, hailing from Greenwood, who was the sole speaker for the cotton growers. Although appearing primarily for the Delta growers of staple cotton, Mr. Whittington also spoke for all the growers of the South, and at the close he was questioned about all varieties by members of the committee. On behalf of the Staple Cotton Co-operative Association of Mississippi, which he described as "the largest and most successful cotton co-operative association in the United States," Mr. Whittington asked for the following tariff rates: On 1 1/16 inch, 7 cents a pound, and one cent additional on each sixteenth of an inch up through 1 7/32; on 1 1/4 inch, to be 14 cents, with an added cent on each sixteenth through 1 3/8; on 1 9/16, to be 20 cents; on 1 1/2, to be 22 cents, and on 1 5/8 and longer, 24 cents a pound.

Cotton and cotton waste at present are on the Free List, under paragraph 1560.

"It may be interesting to say," said Mr. Whittington, "that the chief staple in the United States is 7/8 inches, 42 per cent of the 1928 crop being 7/8 inches, 13 per cent being 13/16 and under, 25 per cent being 15/16 and 12 per cent being 1 and 11/32, while there was 5 per cent of 1 1/16 and 1 3/32. The estimated production of 1 1/8 and 1 5/32 was 413,117 bales. The production of 13/16 and 1 7/32 was 155,590 bales, while there was 27,692 bales with staple 1 1/4 and over. There was production, therefore, in 1928, of approximately 700,000 bales of long staple cotton."

Normally producing about 60 per cent of the world's cotton, Mr. Whittington said, the United States is the largest exporter and manufacturer of raw cotton. The smallest production between 1899 and 1927 was 7,977,778 bales in 1921, and the largest was 17,755,070 in 1926. The United States consumed

6,834,063 bales in the year ending July 31, 1928, of which 299,117 bales were foreign cotton.

"In the cotton growing States," said Mr. Whittington, "the total consumption was 5,113,842 bales and in all the other States was 1,720,221 bales."

Of imported cotton, he continued, in 1928, 201,856 bales came from India, 62,888 from China, 23,319 from Peru, 25,663 from India, 22,843 from Mexico and 1637 from other countries. Egyptian cotton, he said, was used chiefly in the manufacture of tire fabrics and sewing thread, and he asserted that the Mississippi Delta staple "will produce a true fabric equally as satisfactory as the fabric manufactured from Egyptian cotton." Egypt produces about 1,250,000 bales a year, that Government assisting the growers financially in every possible way.

"If staple cotton is not produced in the United States, American manufacturers will be dependent on foreign production, and with governmental aid for Egypt they would be at the mercy of Egyptian cotton growers," Mr. Whittington added.

As to labor, Mr. Whittington said that American labor is paid five times as much as foreign labor and that "it costs about 2 1/2 cents in freight, marine insurance and other charges to ship cotton from Alexandria in Egypt to Boston," while American rail rates were higher on long hauls.

"I suggest that unless a tariff is applied to 1 1/16 and 1 1/32 staple, the growers of Egyptian cotton might develop a staple which could very easily be substituted for those two lengths. If the Egyptian cotton came in free of duty," Mr. Whittington commented.

On the other hand, he said, Mexico has a tariff of 5 cents a pound on cotton, Peru has 6.6 cents, China has .6 cent, Brazil has 7.19 cents and Egypt 8 cents a pound, and "if the Egyptian government undertakes to raise revenue by levying imports on foreign cotton, or if it protects its growers by levying a tariff, surely the United States can do no less."

"If the tariff can be invoked by the manufacturer of cotton, it certainly can be invoked by the grower of cotton. If the tariff will benefit any of the agricultural products, it will certainly benefit long staple cotton," Mr. Whittington concluded.

On behalf of the National Council of American Cotton Manufacturers, Robert Amory of Boston, Stuart W. Cramer of Charlotte, N. C., and John E. Rousmaniere of New York, presented a "brief for cotton manufacturers," in which amendments, complicated to the layman, were advocated to the present complicated schedules. On cotton yarn, including warps, not bleached, etc., this asked for three-eighths of one cent per number per pound, instead of the present one-fifth, and on bleached it asked for .65 cent, instead of .25, as at present. For cotton cloth not bleached, etc., the brief suggested .65 cent per number per pound, none to pay less duty than 10 per cent ad valorem and in addition for each number three-eighths of 1 per cent ad valorem. For cotton cloth printed, etc., the suggested duty was .75 cent per number per pound, none to pay less than 15 per cent ad valorem and three-eighths of 1 per cent ad valorem for each number. The brief continued:

"The cotton spinning and weaving industry in the United States, according to the census of 1925, employs 468,352 people. There are about 1638 mills. It is a highly competitive industry and no one mill or group of mills controls as much as 5 per cent of the industry. The industry is located in a large

number of the States. It is one of the large, if not the largest of, industries and therefore vitally important to the prosperity of Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, Virginia, North Carolina, South Carolina, Georgia, Alabama and Tennessee. It is also very important in many other States. The textile finishing trades employ 70,749 people and the manufacturers of garments, shirts, etc., many hundreds of thousands more.

"The industry has been in a very depressed condition from 1921 to the present, with the exception of 1923 and 1927, but in both of these years the price of raw material, cotton, started low or fairly low and continued to rise throughout the year. Therefore, a large part of the profits was due to the rise in price of raw material and not to manufacturing profits."

In a table of net profits of sales, the brief gave the aggregate as 6.67 per cent; agriculture, 2.68 per cent; mining and quarrying, 7.94; total manufacturing, 6.75; chemicals, 11.44; stone, clay and glass, 10.89; metal and products, 9.24; transportation and public utilities, 14.05; finance, banking, insurance, etc., 12.81; service, hotels, amusements, 5.33; lumber and products, 3.80; construction, 4.40, and so on. For textiles and products, said the brief, this net profit was 1.79 per cent.

Quoting President-elect Hoover, the brief showed that weekly wages, if applied to the purchase of composite pounds of bread and butter, compared as follows, for weavers: United States, 323; United Kingdom, 136; Germany, 106; France, 73; Belgium, 94; Italy, 75; Sweden, 155; Japan, 83.

"The history of the cotton industry shows that there is no chance of the proposed rates producing any injustice to the consumer from abnormally high prices," said the brief. "The textile industry always has been highly competitive. Its methods of manufacture are known to many people and readily accessible. The value of textile plants to communities where they locate has been amply demonstrated by the experience of Southern textile centers and elsewhere. * * * Domestic competition is now and has been for many years extremely keen, so that, whatever the cotton tariff is, no one can have any reasonable fear of exorbitant prices for textiles."

For the United Textile Workers of America, Thomas F. McMahon said that the average wages of textile workers is \$16 a week, compared with \$22 for all American wage earners, and asked for higher duties, for the improvement of present wage scales. This brought on the customary attack on textile labor conditions in the South, to which Joseph H. Separk of Gastonia, N. C., replied: "There are no more contented people on God's footstool than the people of North Carolina, and especially the people in my section."

"In addition to their houses at \$4 a month, free fuel and other advantages, do not Southern textile workers have a place for a garden?" asked Representative Crisp.

"Yes; and for an automobile," replied Mr. Separk.

R. E. Henry of Greenville, S. C., also was listed by the committee for hearing.

From virtually every corner of the South came urgent requests for tariff protection for American agricultural products—products of almost every kind. Typical of the demands presented, backed by convincing figures, the following may be cited:

Stocker and feeder cattle, 3½ cents a pound, compared with 1½ cents; beef cattle, 4 cents, compared with 2 cents; sheep and goats, \$3 a head, compared with \$2; swine, 3 cents a pound, against half a cent; fresh or frozen beef and veal, 8 cents, against three-quarters of a cent.

Fresh milk, 8 cents a gallon, compared with 2½ cents; butter, 15 cents, against 12 cents; cheese and substitutes, American, 8 cents, against 5 cents; poultry, 10 cents, against 3 cents; eggs, 10 cents, against 8 cents; corn, 30 cents a bushel, against 15 cents; oats, 16 cents, against 15 cents; rye, 30 cents, against 15 cents; rice, an increase of 25 per cent; peaches, pears, plums, prunes, ripe or in brine, 1 cent a pound, against half a cent; berries, 2 cents, against 1¼ cents; cherries, natural, 4 cents, against 2 cents; lemons and limes, 2½ cents,

against 2 cents and 1 cent, respectively; oranges and grapefruit, 2 cents, against 1 cent.

Green beans and peas, 2 cents, against half a cent and 1 cent, respectively; onions, 2½ cents, against 1½ cents; potatoes, 1 cent, against half a cent; raw tomatoes, 3 cents, against half a cent; canned tomatoes, 60 per cent, against 15 per cent; peanuts, unshelled, 6 cents, against 4½ cents; shelled, 7 cents, against 6 cents; walnuts, unshelled, 6 cents, against 4 cents; shelled 15 cents, against 12 cents; alfalfa seed, 6 cents, against 4 cents; soya beans, 2 cents, against half a cent; cottonseed, 2 cents, against a third of a cent; hay, \$6 a ton, against \$4.

For wheat, it was suggested that the present rate of 42 cents a bushel be retained, but that it be reinforced by a sliding scale raise when the protein content of wheat is more than 11 per cent. Substantial advances in duties on jute also were asked by Senator Ransdell of Louisiana.

As usual, lively debate developed over the sugar schedule in which the highest rate asked was 3 cents a pound on Cuba sugar, now paying 1.76 cents, and an application of the duty to the Philippine Islands and Porto Rico, from which imports now come in duty free.

Adequate protection on a wide range of metals was asked of the committee early in its hearings.

Two especially interesting items of the committee's program are the hearings on Sundries, scheduled for February 15, 18 and 19, and on the Free List, in which cement appears, on February 20, 21 and 22.

Plans for Rio Grande River Flood Protection.

Washington, D. C.—The Department of State announces that plans have been drawn by the International Boundary Commission of the United States and Mexico, for the construction of levees and storage facilities along the Rio Grande River to prevent floods. This is the first step, it is said, toward international flood control and negotiations will be continued. Tentative plans, as outlined in the report to be submitted to both governments, contemplate artificial rectification of the river, generally following and straightening the present channel, providing additional storage and levees to control flood flows. The alignment of the channel proposed has been so chosen, it is announced, as to equalize areas to be cut from one nation with those to be cut from the other. In developing the plan, the commission had the co-operation of Salvador Arroya, chief engineer of the Juarez Mexico Flood Control Commission; Louis C. Hill, Los Angeles, Cal., consulting engineer, and J. L. Savage, chief designing engineer of the Bureau of Reclamation, Department of the Interior.

Sub-Contracts on \$600,000 Church at Winston-Salem.

Jacob & Youngs, Inc., New York, general contractors for the new \$600,000 St. Pauls Protestant Episcopal Church at Winston-Salem, N. C., have awarded the following sub-contracts:

Cut stone—Briar Hill Stone Co., Glenmont, O.
Exterior granite—Rowe & Roach Co., Greensboro, N. C.
Kalamine—J. S. Thorn Co., Philadelphia, Pa.
Lath and plaster—D. Draddy & Co., Charlotte, N. C.
Linoleum—W. A. Lippincott, Charlotte.
Marble, slate, tile and terrazzo—The McClamroch Co., Greensboro.
Millwork—Smith & Rumery Co., Portland, Me.
Models for stone carving—Henderson & Nolan, Boston, Mass.
Ornamental iron—J. D. Wilkins, Greensboro.
Painting—H. Newton-Marshall Co., Boston.
Roofing and sheet metal—Budd-Piper Roofing Co., Durham, N. C.
Seam face granite and setting stone—Plymouth Quarries, Inc., Boston.
Steel casements—International Casement Co., Jamestown, N. Y.
Structural steel—Salem Steel Products Co., Winston-Salem.
Weatherstrips—W. J. Beaman, Greensboro.
Wood floors—Warner Flooring Co., Winston-Salem.

The new building will be 4 stories, 100 by 152 feet. Cram & Ferguson, Boston, are the architects, and Harold Macklin, Winston-Salem, associate architect.

Co-operation and Prosperity Vs. Profitless Price Competition.

By JAMES HARVEY WILLIAMS, J. H. Williams & Co., Buffalo, N. Y.

In one of your issues of last August there appeared an article on "Price Cutting" as based on an address by O. H. Cheney, and this address and subsequent discussion of the subject created much interest among business leaders. Thereby a distinct public service was rendered, for the problem was brought forcibly to the attention of many industrialists and emphasized the necessity for relief from the uneconomic conditions which for so long have characterized this "cut-throat" price competition in industry. Moreover, your many answers showed plainly that it would be quite impossible for anyone who has had practical contact with our vast steel products industries—to mention but one basic material—to deny the existence of these conditions.

But what a pity it is that they seem unbelievable to the general public, satiated as that public has been with record wages and stock market profits, these past four years. Herein it would seem is one field for legitimate trade association publicity on the part of each of the many industries which have suffered this unwelcome experience of "profitless prosperity," if remedy is to be hoped for. For let us not forget that the hope of remedy is almost wholly psychological. The cause of the trouble certainly was, so why not the need for remedy likewise?

Mr. Cheney's able discussion "Whose Steel Industry Is it?" painted a "condition" authentic beyond dispute, but did it forecast so happily the "theory" of the way out? It is the "condition" which confronts us, but it is the selection and "sale" of the "theory" that will determine whether we are to be liberated. Mr. Cheney considers that "over-capacity" is an "alibi," and urges in effect that in the presence of the buyers we maintain that "our strength is as the strength of ten because our hearts are pure," regardless of whether we think our competitors' hearts capable of a similar degree of self-abnegation. This is "not so good" when opposed to the equally authentic doctrine of our more hard-boiled competitors—"it is more blessed to give than to receive"—to which our only answer in the scheme of human nature can be that in poverty lies virtue.

If that answer will satisfy our shareholders, well and good, but if not we must dig beneath the surface where we will quickly strike a rock that has long been considered immovable, for it is the rock upon which was built the Sherman Act. So great is the tradition thereof—it was designed to withstand earthquakes—that it has long since been employed to repel rumblings, with the result that these rumblings "little by little and bit by bit" back up and multiply till they are daily approaching the status of an earthquake—and the people don't realize it. And so the public psychology which originally produced the hysteria against the earthquakes, that is to say the trusts, should be educated and used for the protection of the zephyrs which are content to eke out their lone existence as zephyrs for so long as they are not required to band together for self-preservation.

Yet the public continues to wonder why it is that the press is so full of the formation of Big Business mergers, and says to itself, "It must be greater efficiency." Here then is the very real psychological factor above referred to.

There are also in this question of Competition vs. Co-operation other factors of no less importance to its proper solution, the political, historical, legal, and above everything else the economic factors, each a power to be reckoned with, and each a phase warranting separate and careful analysis in any complete consideration of a redetermination of national policy.

It is sufficient perhaps for any necessarily short discussion of the subject to emphasize but a few of the underlying facts which when generally realized will make simpler the ultimate solution:

1.—There is not a word in the Sherman Act that is inherently uneconomic or objectionable to the best interests of business.

2.—Practically all the widespread complaint against this law lies in the Supreme Court interpretations of the phrase "restraint of trade."

3.—Nowhere in the past experience of this or any other country, in economic law or anywhere else, except in the hysteria and confusion of the American public, is there any demonstrated authority in support of the dictum that protective agreements between two or more units as to price, production or territory are contrary to the public interest.

4.—The Sherman law is popular because it is supposed to be only an anti-trust law. The public does not know that in respect to these interpretations it is a "pro-trust" law.

5.—These interpretations assume that consumers alone constitute "the public interest." They disregard the producers, workers and investors, who in fact are also the consumers.

6.—Since buyers may organize while sellers may not, the need for protection to the buyers, necessitated by the oppressive methods of the trusts prior to 1890, has now been just as fully transferred to the sellers.

7.—Upon the ability of efficiently conducted capital to prosper depends not only the welfare of employees and even of communities, but also the continued production of needed supplies.

8.—No responsible business man who gives thought to the interest of the entire public wishes business to be wholly free from accountability to some properly constituted governmental agency as a protection against oppression otherwise possible.

In view of all this, and in view of the widespread dissatisfaction with this law as it now exists, it is a pity there should be so much misunderstanding in the public mind of both the historical and the economic facts. It is a pity that so much of the business element itself should be divided, according in some cases to its own special interest, and in others according to how readily it has accepted the governmental theories as, ipso facto, well founded in fact. It is lamentable, too, that in this Twentieth Century many who appreciate the necessity of Sherman Law revision on business grounds are more or less secretly opposed to revision on labor grounds, because they fear that the use of the injunction in labor disputes, now permitted under the Sherman Act, might be jeopardized if reconsidered separately on its merits. Is it surprising therefore that the methods of the cave-man in industrial disputes still occasionally endure, and can the regrettable necessity for the existence of trade-unions ever be overcome on the basis of such a philosophy? Yet this viewpoint is strongly held by some of our otherwise most enlightened and successful industrial leaders and business organizations.

Industry, therefore, has some internal problems of its own to solve before it can achieve that solidarity of purpose before public opinion which will be necessary to carry conviction in making effective its business needs.

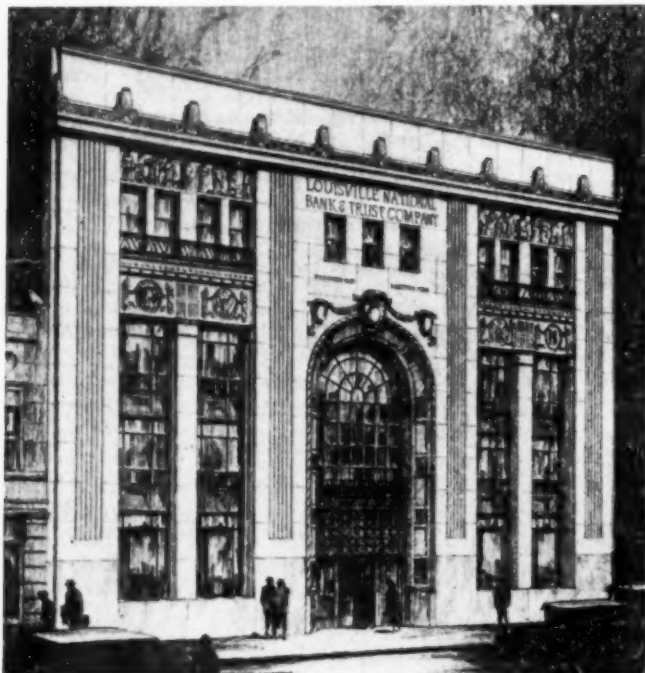
Here, then, lies a constructive, if not fertile, field for the many abolitionists of "profitless prosperity," one which if not productive of immediate results, will at least offer a quicker and surer progress than the wholesale changing of human nature that would be involved in having an industry "highly resolve" under present conditions not to let the organized buyers reap the obvious benefits, and inflict the obvious penalties, conferred upon them by the prevailing interpretations of the Sherman Act.

When the labor and business phases of present legislation

become divorced, each to stand upon its respective merits, and when the public is educated, as can be demonstrated by the facts, to the realization that co-operation must succeed cut-throat competition in the public's own interest but with due protection of that public against both oppression and inefficiency, then and then only will ensue that reasonable degree of economic equilibrium which will come from permanent correction of present maladjustments, since their ramifications extend into and affect still other important and modern developments of the business fabric. There is, therefore, no economic question today which so greatly challenges the solidarity and constructive efforts of industrial leadership.

\$500,000 Bank and Office Building.

Construction is in progress on a \$500,000 bank and office building in Louisville, Ky., for the Louisville National Bank & Trust Co., the structure covering an area 175 by 75 feet. It will be 4 stories and basement, the first floor and basement to be occupied by the bank and the second and third floors tenanted. The Board of Trade will occupy the fourth floor. Bowling Green stone is being used for the exterior and



LOUISVILLE NATIONAL BANK AND TRUST BUILDING.

marble for the floors, stairway and lobby. The St. Louis Bank Building & Equipment Co., St. Louis, Mo., designed the building and is handling construction, with Nevin, Wischmeyer & Morgan, of Louisville, as supervising architects. Warren & Ronald of Louisville are mechanical engineers. Contracts so far awarded include the following:

Air filtering system—Reed Air Filter Co., Louisville.
Brick and tile—J. J. Lee, Louisville.
Electrical work—Marine Electric Co., Louisville.
Elevators—American Elevator and Machine Co., Louisville.
Excavating—Highland Motor Transfer Co., Louisville.
Floor coverings—Bensinger Outfitting Co., Louisville.
Glazing—Wolf-Blitz Glass and Paint Co., Louisville.
Hardware—Belknap Hardware and Manufacturing Co., Louisville.
Heating and ventilating—F. A. Clegg & Co., Louisville.
Hot water system—Hoffman Heater Co., Louisville.
Interior steel—The Logan Co., Louisville.
Lighting fixtures—The Brecher Co., Louisville.
Marble fixtures—Shaw Marble and Tile Co., St. Louis.
Millwork—The Anderson Co., Louisville.
Ornamental iron—Kentucky Metal Products Co., Louisville.
Plastering—William P. Bannon, Louisville.
Plumbing—Crescent Plumbing and Heating Co., Louisville.
Plumbing fixtures—Laib Co., Louisville.
Rustproofing—Republic Welding Co., Louisville.
Stone—Peter & Burghard Stone Co., Louisville.
Structural steel—Sneed Architectural Iron Works, Louisville.
Vaults—Mosler Safe Co., Hamilton, O.
Wrecking—Moll Wrecking Co., Louisville.

\$56,000,000 EXPENDITURE BY TWO ST. LOUIS UTILITIES.

\$42,000,000 for Telephone Improvements and \$14,000,000 for Power and Light Betterments in 1929.

St. Louis, Mo.—Because of anticipated expansion here the Southwestern Bell Telephone Co. plans to serve 8000 additional families in the St. Louis metropolitan area during 1929, according to Percy Redmund, general manager. The 1929 budget calls for an expenditure of more than \$42,000,000 to expand its properties in the territory it serves, of which \$2,800,000 will be for buildings, equipment and exchange lines in St. Louis. Exchange equipment is estimated to cost \$1,234,000; \$915,000 will be expended for 85 miles of cables and 2000 poles in St. Louis alleys. Moving telephone installations and furnishing telephone service for 9 municipal projects in the city will require an outlay of \$70,000, it is said.

In anticipation of a steady growth of business in the district, the Union Electric Light & Power Co. will expend \$14,000,000 during the year, according to Louis H. Egan, president. A major improvement will be the installation of a new generator in its Cahokia plant, removal of a generator to the plant at Venice, Ill., and raising levees, all at a cost of \$2,750,000. About \$200,000 will be expended for new transmission lines at Keokuk and East St. Louis, Ill., and gas main extensions and replacements made in St. Louis County. Six additional cables will be laid under the Mississippi River at a cost of \$100,000, while various improvements will be made through the Mississippi River properties extending from Burlington, Iowa, to Southern Missouri.

New Orleans-Chicago Air Line.

New Orleans, La.—Passenger airplane service between New Orleans and Chicago will be possible by the middle of February, according to announcement made by Ellis M. Boggs of the Southern Aeronautical Service, Inc. A tri-motor Ford plane has been purchased and four additional planes for the service will be acquired. The company is also negotiating for an airfield of 300 acres near New Orleans. Sixteen passengers will be carried by each plane and a regular schedule maintained, the route to be through Hammond, La.; Jackson, Miss.; Greenwood, Miss.; Cape Girardeau, St. Louis, and Springfield.

Architectural and Allied Arts Show.

Advance information on the Architectural and Allied Arts exposition which will open in the Grand Central Palace, New York City, on April 15, is given in a pamphlet which says that the exposition will be open to the public from 2 p. m. to 10.30 p. m., except Sunday, through April 27. The exposition will be held under the auspices of the Architectural League of New York, with the endorsement of the Society of Beaux Arts Architects and the New York Building Congress. Charles H. Green is managing director, 105 West Fortieth street, New York.

Virginia Railroad Sold for Reorganization.

Winchester, Va.—Acting for a reorganization committee, Herbert S. Larrick and R. Gray Williams of this city, have purchased the Winchester and Western Railroad on a bid of \$200,000, the sale being made by D. H. Sencindiver of this city and Adrian C. Nadenbousch, Martinsburg, W. Va., special commissioners appointed by the court in a cause in chancery. The rail line of the company begins at an intersection with the Baltimore & Ohio Railroad about a mile south of Winchester and extends westerly through Frederick, Hampshire and Hardy counties to Wardensville, a distance of 42 miles.

Cotton Production Area Extending Westward.

By A. P. BRODELL, Assistant Agricultural Economist, Bureau of Agricultural Economics, Department of Agriculture, Washington.

Following the first plantings of cotton in this country along the South Atlantic Coast cotton production has ever expanded westward. Until recently this movement was a reflection of the growth of a new industry in a new country and these developments did not seriously affect the older and more established areas. Then, as now, growers in the newer areas had larger acreages and newer soils. Cotton

production during recent years has expanded rapidly in some parts of the cotton belt; in some of the older and more established districts there has been a marked decline in production and a decrease in acreage planted.

The average size of the United States cotton crop from 1925 to 1927 was about 15,500,000 bales. This was 4,000,000 bales more than the average production from 1917 to 1919, and 2,000,000 bales more than the average yearly production from 1912 to 1914. While production in most states from 1925 to 1927 showed some increase over 1917 to 1919, about 65 per cent of the increase has been in Texas and Oklahoma. Although much of the recent increase has been in these western states, a more significant fact is that most of it has been in the more western part of these states, largely in districts that until recent years grew little cotton. Thus we find that 12 of the most western cotton producing counties in Oklahoma, where some 10 years ago the average crop was about 150,000 bales, have in the past three years produced about 625,000 bales annually. Ten years ago these counties produced about 20 per cent of the cotton grown in the state; in the past three years more than 40 per cent.

Expansion in Texas has been of a similar nature except for an even greater increase in the westernmost cotton counties. Representative counties in the more northwestern parts of the high plains section increased their production in the past ten years anywhere from 600 to over 1500 per cent. There were also increases along the western border of the cotton producing area. In the eastern and central parts of Texas and Oklahoma there has been some increase, but in most instances it has not been important and in some counties production has actually declined. For example, production in such counties as Ellis and Williamson in the black belt of east central Texas, is appreciably less than that from 1910 to 1915 and earlier. Production has declined in some of the older eastern areas, especially along the Atlantic Coast, the heaviest decreases being in Georgia and South Carolina. Some 15 years ago Georgia's cotton crop ranked next to that of Texas but production has decreased about 45 per cent since 1910, about half of the decrease occurring since 1918, whereas production in Texas and Oklahoma has increased about 25 per cent since 1910.

Cotton has long been produced on a rather small scale in the more western parts of Oklahoma and Texas; some production was reported in these areas by the Census Bureau by 1900. In 1919 a material increase in plantings resulted from the high cotton prices prevailing during and immediately following the war-time period. The greatest expansion took place in the years following 1921, the acreage planted increasing each year until 1926.

The boll-weevil has been an important factor; before this pest came cotton was regarded as a practically sure crop in

The expansion of cotton growing into the more westerly counties of Texas and Oklahoma, and the production of cotton in those sections at lower costs than has been possible in older areas, has brought about some interesting possibilities. The extent of this movement and its significance is outlined in the accompanying article.

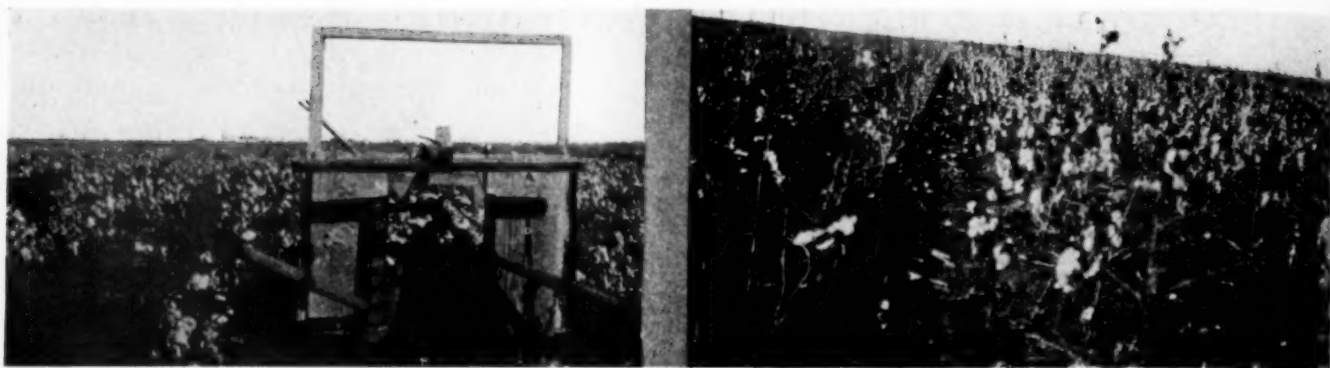
the eastern cotton country. Previously, hazards were greatest in the western areas where the possibility of a shortage of moisture or a short growing season has always existed. The cotton plant in years of more than average rainfall made an excessive growth in the eastern areas and the harvesting difficulties were increased, but even in those years the yield was seldom seriously reduced. Thus, in South

Carolina from 1910 to 1915 average yields ranged from 210 to 280 pounds of lint per acre. In the past six years they have ranged from 125 pounds to 295 pounds per acre. Average yields in Georgia ranged from 160 pounds to 210 pounds of lint cotton per acre during the 1910-1915 period and from 100 pounds to 190 pounds during the recent period.

Wide variation in yield also occurs in Texas and Oklahoma, in Texas ranging from 145 pounds to 200 pounds from 1910 to 1915, and during the past six years from about 90 to about 275 pounds. This variation is a reflection of the extent of weevil infestation in the central and eastern areas of these states and unfavorable weather in the western areas where weevil damage is insignificant. Before the weevil became of importance, eastern planters felt reasonably certain they could increase their yield by using more fertilizers; nowadays, the full benefits are frequently not obtained because of partial destruction of the crop by the weevil. Fertilization is, of course, still practiced in the eastern states and there can be no doubt that its intelligent use makes for higher yields, but increasing the cotton yield by increasing the quantity of fertilizer cannot now be relied on as in past years.

The United States cotton crop in 1921 amounted to about 8,000,000 bales, the smallest crop in more than 25 years. It followed the 1920 crop, generally considered disastrous to growers because of high costs involved in producing it and the generally low price. And many observers thought the small size of the 1921 crop was due to a relatively small acreage, to more than average weevil infestation and to a general let-up in the use of fertilizer and in the care of the crop. The 1922 and 1923 crops each were in the neighborhood of 10,000,000 bales but the acreage had been materially increased over 1921. The three crops reported for these years were the smallest for any three-year period for more than 25 years. As a result of the small crops, prices reached the highest levels, except in war periods, since the years immediately following the Civil War.

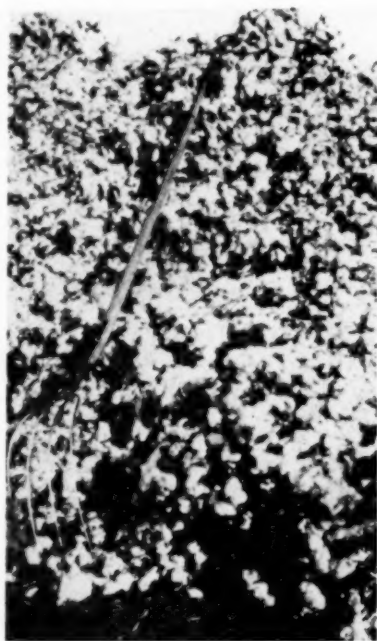
Many observers thought that a shortage of American cotton was probable. Attempts were made to increase the planting in new areas in this country, particularly the more western parts and along the northern boundaries of the cotton belt; other countries, too, made some effort to increase production. In this country these developments resulted in an appreciable increase; the cotton acreage in the United States, about 30,000,000 acres in 1921, increased to 47,000,000 in 1926, the largest ever reported. Each year beginning with 1921 it was in turn higher than for the previous year, until 1926. Beginning with the 1924 crop weather conditions became more favorable for weevil control; and crops for 1924, 1925 and 1926 each in turn were larger than for the preceding year. The largest came in 1926, with about 18,000,000 bales harvested, and in addition much cotton was left in the field. It is



Left—Another type of sled for short cotton stalks. Right—Cotton field, part of which has been harvested with sled.

generally believed that had favorable prices prevailed the harvested crop might have approached the 20,000,000 bale mark. The great 1926 crop brought low prices, with returns in many instances hardly sufficient to pay the harvesting and ginning expense. This ended, at least temporarily, the expansion of cotton production, particularly in some sections.

Most parts of the new cotton country in western Texas and Oklahoma, where large increases in production have been reported, had been a grazing country and the cattle industry was having its difficulties from 1921 to 1925. Much of that country is prairie land, and converting these grazing areas into cultivated fields was not expensive as but little actual clearing was necessary to make the land ready for the plow. There cotton production survived the ruinous prices of 1926; and considering the physical and economic advantages it appears that these new areas are the best equipped for producing cotton at a low cost. While high cotton prices, together with the financial difficulties of the cattle industry, were the chief



Sledged cotton ready for hauling to gin.

factors in establishing cotton production in these new areas, there have since been other favorable developments that will undoubtedly make cotton farming of a permanent nature there. Many of the present cotton farmers were formerly small ranchmen or had been engaged in growing feed crops and small grains with little experience in cotton. Thus they had all to learn and nothing to unlearn on the growing of cotton. Usually there is only a small amount of summer rainfall in the western cotton country, and weed control is less difficult than in more humid eastern areas. Some growers soon found it possible to grow cotton without hoeing or thinning the crop. The growing season is usually short and the grower must strive for early maturity. Results from experiments indicated that thick spacing of cotton makes for early maturity and for as good or better yields. Thus the elimination of hoeing and thinning not only resulted in a saving of labor on farms where these operations could be dispensed with but actually made for increased gross returns from the crop. These



Left—Type of sled used principally for harvesting cotton when plants are usually 30 inches or more in height. Center—Attachment at end of box so that hitch to horses or tractor will not come into contact with cotton. Right—Sled for cotton less than 30 inches in height.

western growers, especially the growers in Texas, find it to their advantage to use a floating supply of labor for certain operations. It is largely Mexican, obtained from nearby towns and along the border and from Mexico.

Much of the cotton land is level and the fields are rather large. As a result farmers began using larger machines for planting and cultivating. A considerable number are using tractors and tractor drawn machinery; two to four-row tractor-drawn listers and lister-planters of the same size, and two, four and even six-row tractor-drawn cultivators and other large size machines, are in use. On other farms where tractors have not been generally adopted, relatively large horse-drawn machines are used.

The western cotton farmer as a rule is continually striving for more effective ways to perform the various operations necessary to grow cotton and is quick to adopt new methods when they appear to be of a practical value. A striking example of this tendency occurred in the late fall of 1926 when the cotton sled was first used on an extensive scale. The first sledding was about November 10; yet by December 1 this harvesting method had spread over most of the western cotton country of Texas and Oklahoma. It has been estimated that from 500,000 to 1,000,000 bales were harvested by sledding that year; much of it, except for the use of the sled, would probably have remained in the field because of low prices and scarcity of labor. Most cotton sleds used in 1926 were home-made devices, often hastily constructed. Their use, however, under the conditions that existed was decidedly beneficial to cotton growers of these new areas. In 1927, when cotton sold for fair prices the sledding method was rapidly discarded and the crop was largely gathered by picking and snapping. In future years cotton growers will have improved sleds at their disposal and in years of fair cotton prices these sleds probably can be best used only for salvaging so-called "scrap-picking" and for harvesting bolls, but they will be available for harvesting the crop as a whole should 1926 conditions be repeated.

By using labor effectively and large machines, growers in these new areas invariably produce more cotton per man than is grown in the eastern cotton areas. Recent information from a representative county of the high plains section of Texas shows that an average of about 80 acres is raised for each cotton farmer reporting in the county. Individual farmers in the new areas grow anywhere from 150 to 200 acres of cotton, especially when tractors and tractor-drawn machines are used; when this acreage is raised the farmer usually grows only a small acreage of feed crops. In the older districts of the eastern belt the farm family usually plants anywhere from 10 to 30 acres of cotton and about the same acreage of other crops.

The amount of labor necessary for producing an acre of cotton varies for different parts of the cotton belt and with different farms in the same producing districts, depending principally on the size of machines used, number of times certain operations have to be performed, method of harvesting, and yield. In most districts in the eastern belt, from 100 to 125 hours of man labor is usually needed for growing and harvesting an acre, returning a yield of 150 pounds lint. In the central parts of Texas and Oklahoma where large machines are frequently used but where climatic conditions make hoeing and thinning necessary, and where weevil control is also an important problem, from 50 to 70 hours of man labor is usually sufficient for a like yield. In the more western and newer cotton areas of Texas and Oklahoma, from 30 to 40 hours of man labor is about the average requirement for growing and harvesting an acre returning that yield; some who use tractors and tractor-drawn machines for making the crop, and who harvest by snapping or sledding, can grow cotton with much less than that amount of labor.

Calcium arsenate, commonly used for weevil control, and fertilizers add considerably to the cost of production in the

area lying east of Central Texas but are of no consequence in extreme western areas.

Due to the small amount of labor necessary and the small expense for materials, growers in the new sections of Texas and Oklahoma can produce cotton at a considerably lower cost than growers elsewhere. It has been reported that some western farmers, when good yields were obtained, have produced cotton at a cost of 10 cents per pound of lint or even less; the general average for the new sections as a whole is higher than this, and in most years a fair cost range is from 12 to 15 cents per pound of lint. Production costs in eastern sections, with yields such as have prevailed in recent years, frequently average about one-fourth to one-third higher.

Continued expansion of cotton production appears probable in these western areas in the years just ahead. Apparently, however, the increase will be less rapid than in recent years. The cattle industry is on a more favorable basis and there will be less inclination for converting pastures into cotton fields. There remain in these newer areas millions of acres that can be used for cotton; any material expansion, however, will bring into use increasing amounts of less desirable land. Should production move farther westward increasing hazards of drought damages will result, and with expansion to the north there is the ever increasing possibility of too short a growing season. Thus, while growers in these new areas have many advantages over eastern cotton growers at present, it is not likely that their production will soon constitute a formidable part of the United States crop. The more humid districts, where weevil infestation is a continued hazard, will in the near future as in the past continue to produce a large part of our cotton.

Frisco System Plans 185-Mile Through Route in Texas.

Fort Worth, Tex.—Plans have been filed with the Interstate Commerce Commission by the St. Louis-San Francisco Railway, F. G. Jonah, St. Louis, chief engineer, for the organization of a new through route of approximately 185 miles, from Amarillo to Fort Worth. Permission was also asked by the Frisco to purchase the Gulf, Texas & Western Railway, paying \$2,300,000 for the stock and bonds. The Gulf, Texas & Western asked authority to build 71 miles of new line from Seymour to Paducah, both in Texas, by way of Truscott. Funds for this construction would be advanced by the Frisco, which asked permission to extend its own line from Vernon into Seymour, a distance of about 42 miles. A third proposal embraced a request by the Frisco for authority to acquire trackage rights over the Chicago, Rock Island & Gulf Railroad for a distance of 71 miles, from Jacksboro into Fort Worth.

\$600,000 Hospital and Medical Building for San Antonio.

San Antonio, Tex.—The construction of a \$600,000 hospital and medical building here will be undertaken by a company to be incorporated by J. Arthur Clark and associates, who plan a 14-story structure on East Houston street. There will be a one-story structure on a 20-foot frontage on Travis street to provide a ramp to the hospital, which will occupy the seven top floors. Ralph H. Cameron, San Antonio, is the architect.

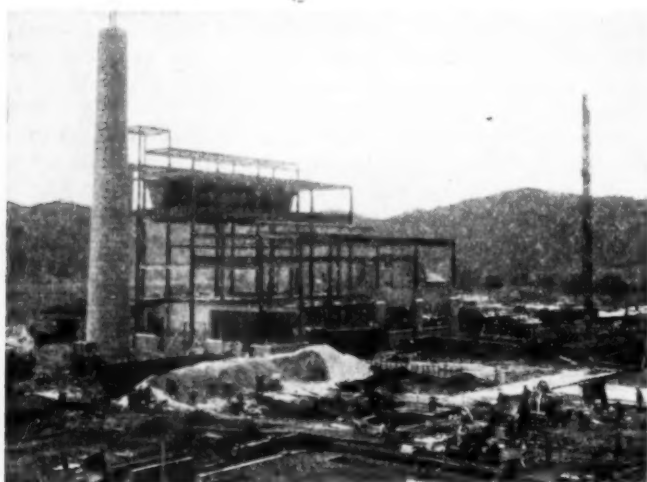
To Extend Railway Line More Than 23 Miles.

Fort Smith, Ark.—Directors of the Arkansas Western Railway Co. have voted to extend its line from the terminus at Waldron, Ark., 23.5 miles southeasterly to open up rich timber lands. At present the road extends west from Waldron to connect with the Kansas City railroad at Heavener, Okla. The new extension is estimated to cost \$420,000.

Construction Progress on \$10,000,000 Rayon Plant.

Inaugurating construction early in September on the \$10,000,000 rayon plant at Covington, Va., for the Industrial Rayon Corporation of Cleveland, Ohio, the Fiske-Carter Construction Co., Greenville, S. C., general contractor for the project, expects to complete it this spring. The main building is 727 by 333 feet, one story high except for a 3-story acid building on the north end. Outside walls are faced with rough texture brick, while the office end of the structure has architectural terra cotta window sills and coping. Inside walls in cloak and toilet rooms will be faced with white enameled brick. Floor construction in the textile department will be of the same standard construction used in cotton mills, consisting of 4½-inch tar concrete, 2-inch creosoted plank and 1-inch maple topping, while in the manufacturing area it will consist of 4-inch cement concrete with a 2-inch acid-

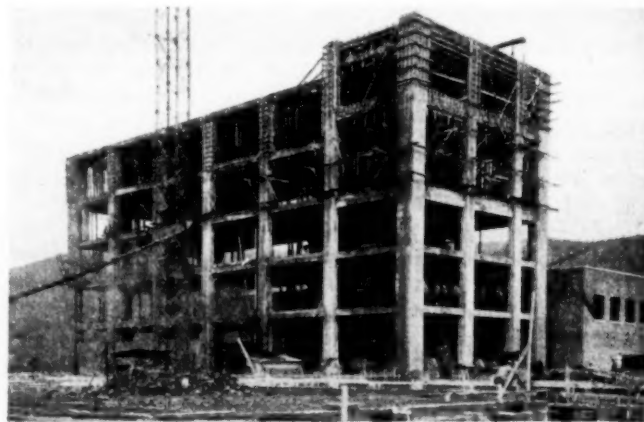
roof. A pulp storage building will be of warehouse construction, 180 by 48 feet. Designed for a capacity of 3,000,000 gallons daily, the filter plant, which will be of reinforced concrete, may be extended to take care of other units of the mill as they are constructed. A gravity section dam is being built to impound the water of Potts Creek, a tributary of the Jackson River, which will be used to supply the plant. J. E. Sirrine & Co. of Greenville, S. C., are engineers for the project.



POWER HOUSE UNDER CONSTRUCTION.

resisting mastic top floor. Roof construction consists of steel trusses, spanning 78 feet from column to column and forming 26 saw teeth, the fronts of the latter being glazed with ¼-inch wire glass and the backs covered with 3-inch plank and 5-ply 20-year Barrett roofing.

The power house is 131 by 121 feet, also faced with rough texture brick with inside walls faced with light gray salted glazed brick. The mass preparation building is 148 by 50 feet, 5 stories, of reinforced concrete frame and slab construction with brick curtain walls, steel sash and 20-year Barrett

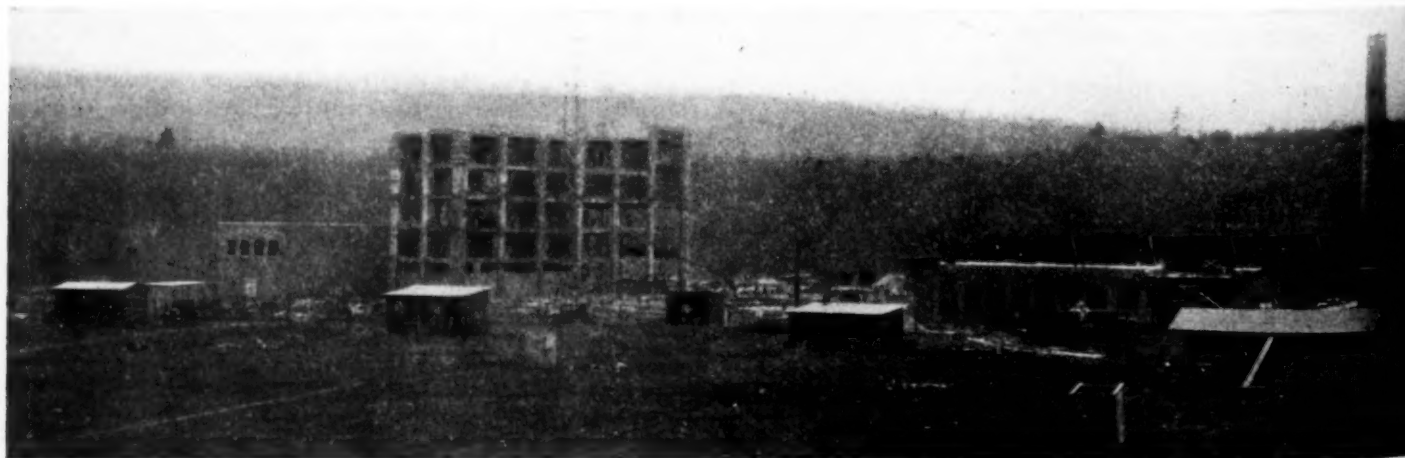


MASS PREPARATION BUILDING.

The following sub-contracts have been awarded to date for work and material:

Common brick—Covington Brick Co., Covington.
Mastic flooring—Ralph V. Rulon, Inc., Philadelphia.
Reinforcing steel—Atlanta branch of Kalman Steel Co., Chicago.
Roofing and sheet metal—J. A. Piper Roofing Co., Greenville, S. C.
Rough texture brick—Locher & Co., Inc., Glasgow, Va.
Salt glazed brick—Stark Brick Co., Canton, Ohio.
Steel sash—Atlanta branch of David Lupton's Sons Co., Philadelphia.
Structural steel—Virginia Bridge and Iron Co., Roanoke.
White enameled brick—American Enameled Brick and Tile Co., New York.

The Industrial Rayon Corporation has developed a new type of spin machine which it will install in the Covington plant, while all other equipment has been specially developed by the company's designing department. Mechanical installations are being carried out by the company, which expects to be in production some time in July, producing 1,000,000 pounds of rayon this year, and to begin the 1930 production on the basis of 120,000 pounds weekly. A part of the required mechanical equipment will be supplied by the following companies: Carrier Engineering Corp., Newark, N. J.; Proctor & Schwartz, Inc., Philadelphia; Baker-Perkins Co., Inc., Saginaw, Mich.; Mead-Penn Iron Works Co., Mead-



MAIN BUILDING OF THE INDUSTRIAL RAYON PLANT UNDER CONSTRUCTION AT COVINGTON, VA., WITH MASS

ville, Pa.; Aluminum Co. of America, Pittsburgh, and the B. F. Goodrich Rubber Co., Akron, Ohio. Boiler equipment will be furnished by the Hedges-Walsh-Weidner Co., of Chattanooga, Tenn. a branch of the International Combustion Engineering Corp., New York, and all electrical equipment by the Westinghouse Electric & Manufacturing Co., of East Pittsburgh, Pa.

Details of Big Feldspar Merger Announced.

The incorporation of the Consolidated Feldspar Corp. of Trenton, N. J., with estimated assets of more than \$8,000,000, as recently announced, represents the consolidation of three important feldspar operations including the Maine Feldspar Co. of Auburn, Topsham and Brunswick, Me.; Dominion Feldspar Corp. of Rochester, N. Y., and the feldspar department of the Isco-Bautz Co., of Murphysboro, Ill. The new company, under the direct supervision of Herbert P. Margerum, Trenton, will be associated with the Golding Sons Co. and the Erwin Feldspar Co., Inc., both of Trenton, of which Mr. Margerum is also president. Other officers include Norman G. Smith, Brunswick, Me., and R. W. Lawson, Erwin, Tenn., vice-presidents; M. A. Murray, Trenton, secretary and treasurer; V. V. Kelsey, Trenton, sales manager; Charles M. Franzheim, Wheeling, W. Va., special sales representative, and G. G. Hanson, Chicago, western representative.

The Maine Feldspar Co. mines and mills the Mt. Apatite product, while the Dominion Feldspar Corp. is a producer of Canadian spars, supplying the Derry and Imperial brands, said to be high potash spars and popular with the ceramic industries. The Derry brand is mined at Buckingham, Quebec, and the Imperial brand at Verona, Ont. Feldspar produced by the Isco-Bautz Co. originates near Keystone, S. Dak., and is said to be a well balanced Orthoclase spar, meeting the demands of ceramic industries in the central west requiring a high potash product.

Mines of the companies are located at Auburn, Topsham and Georgetown, Me.; Portland, Conn.; Trenton, N. J.; Hockessin, Del.; Conowingo, Md.; Verona, Ont.; Buckingham, Quebec; Rochester, N. Y.; Murphysboro, Ill.; Keystone, S. Dak.; Erwin, Tenn.; Spruce Pine, N. C., and Butler, Ga.

The consolidation of these properties will permit the trade, it is said, to have the advantage of securing any type of spar it may desire, from mills located at strategic points and accessible to practically all ceramic industries. The establishment of a well equipped central laboratory is contemplated, where frequent chemical, physical and practical tests will be made for the consumer, while a considerable amount of research work is planned, two fellowships having already been established in a leading university. Results of research work will be published in pamphlet form and distributed.

CEMENT COMPANY LETS CONTRACT FOR BARGE LINE EQUIPMENT.

Will Serve Packing and Distributing Plant at Memphis.

The Marquette Cement Manufacturing Co., Chicago, recently awarded a contract to the Ritter-Conley Co., Pittsburgh, Pa., for four self-unloading bulk cement barges for use on the Mississippi River, between Cape Girardeau and Memphis. Plans for the barges, prepared by T. R. Tarn, naval architect, Pittsburgh, provide for dimensions of 175 by 35 by 8 feet, each to have a carrying capacity of 800 tons in three hoppers. The cost of the barges will be about \$120,000. Plans of the company also call for the construction of a 700-horsepower twin-screw Diesel tug, estimated to cost \$110,000.

The announcement of contract for this equipment is of special interest at this time, in view of a statement about six weeks ago by the Marquette company that it would build a packing and distributing plant at Memphis on the Wolf River canal at the foot of Poplar street to consist of three reinforced concrete storage silos, 18 by 60 feet, with basement, and a steel frame asbestos covered packing plant and bag storage building 40 by 40 feet. The packing plant will contain two 3-tube Bates cement packers and conveyor belts to load railroad cars and trucks. L. E. Ritter, Chicago, is the consulting structural engineer and A. F. Miller, Jackson, Mich., consulting mechanical engineer.

Bids Requested on \$1,750,000 Courts Building and \$2,000,000 Auditorium for New Orleans.

New Orleans, La.—It is announced that bids will be opened February 19 by the Commission Council for the erection of a \$1,750,000 criminal courts and parish building and on February 11 for the erection of a \$2,000,000 auditorium. The former will be of Classic design, 4 stories. Diboll & Owen, Ltd., New Orleans, are the architects. The auditorium will afford space for a convention hall, theater, exhibitions and for other purposes. Favrot & Livaudais, Ltd., are the architects and Sam Stone, Jr. & Co., consulting architects, both of New Orleans. Leigh Carroll is chairman of the auditorium commission.

Contractors estimating on the courthouse include the following: Henger & Chambers Co., Dallas, Tex.; Dalgarn Construction Co., R. P. Farnsworth & Co., O. M. Gwin Construction Co., Caldwell Bros., W. Horace Williams Co. and the Reimann Construction Co. and J. V. & R. T. Burkes, all of New Orleans; Fleischer Engineering & Construction Co., Chicago; Murch Bros. Construction Co., St. Louis, and C. A. D. Bayley & Co., New Orleans and Atlanta, Ga.



PREPARATION BUILDING AT LEFT AND POWER HOUSE JUST BEYOND MAIN STRUCTURE NEAR CENTER OF PICTURE.

West Virginia State Schools Promote Agricultural Development.

By LEONORA W. WOOD, Keyser, W. Va.

By some persons, West Virginia is regarded largely as a mining and manufacturing state; actually, agriculture is one of the leading industries, and the basis of West Virginia's rural life improvement program is being used as a model throughout the country. There are 90,000 farms in the state, with farm property valued at \$500,000,000, and the income from agricultural products in 1927 was \$144,000,000.

West Virginia always has had a large rural population, and the farm folk are more than 98 per cent native born



DAIRY BARN AT WARDENSVILLE, W. VA.

A structure 208 feet long used to house the Ayrshires owned by the Raymann Memorial Farms.

white. The state is rich in natural resources, and until comparatively recent years farms were considered by many as comfortable luxuries. Through radical changes in industrial conditions, however, people in the rural sections began to take stock of their natural resources and were brought to a realization that the future of the state, to a large extent, depended upon agricultural development. Also, in practical fashion, intelligent farmers united to work out a program of rural development which has grown until it touches every phase of rural life, and has extended into every accredited school in the state. West Virginia, therefore, may be held up as an example for the whole world in the work being done among its country boys and girls.

West Virginia was the first state to provide a rural playground and open-air training school. Four-H camps, where

"Head, Hand, Heart and Health" are being developed in a natural, normal way, have been established in 40 counties. These, together with the state camp of more than 100 acres, at Jackson's Mills, the boyhood home of Stonewall Jackson, are giving thousands of worthy boys and girls the training that will make them appreciate every advantage of their rural life, as well as prepare them for the duties of citizenship and community leadership.

In great measure, these far-reaching achievements are the outgrowth of a well planned and persistently waged educational campaign conducted by the West Virginia College of Agriculture; a distinct college of the university, located at Morgantown. In 1897, the college embarked on its eventful career with an enrollment of two students and for the first five years the freshman class never exceeded five in number, while less than a dozen men graduated with the degree of Bachelor of Science in Agriculture. But during the last 16 years, the growth has been rapid. The requirements for entrance to the College of Agriculture are the same as for other colleges of the university and the college has three well established divisions: Resident instruction, agricultural experiment station and extension division.

The division of resident instruction offers thorough training in the theory and practice of agriculture and home economics, with opportunity to specialize in any desired field. Graduates from this department are in constant demand as county agents, home demonstration agents and technical and administrative experts.

The agricultural experiment station carries on extensive research and experimental work, teaching agricultural principles, such as variation of crops, crop rotation systems, improved methods of feeding livestock, control of diseases and insect pests among plants and animals. This information is printed in bulletins and circulars and is carried to the farmers in forms suited to their needs, by the county agents and extension workers. Directly connected with the experiment station and under the supervision of the College of Agriculture are the Raymann Memorial Farms at Wardensville, donated by the heirs of Lawrence A. Raymann of Wheeling for use as experimental farms, but especially to experiment in methods of developing dairy herds, the Ayrshire breed of dairy cattle in particular. Foundation herds are being



MEN'S DORMITORY AT POTOMAC STATE SCHOOL, KEYSER, WEST VIRGINIA.

distributed throughout West Virginia and adjoining states, and dairying is fast becoming one of the most profitable industries in a broad section surrounding the farms.

The youngest department is the extension division, which supplements the work of the other two, making the College

independent enterprise, that it must be made self-sustaining, and must be made profitable, even from a financial standpoint. And these things, which seemed highly improbable, are actually being done. Under supervision of Paul C. Rouser, vocational-agricultural teacher and farm manager, the enter-



STUDENTS IN AGRICULTURE SPRAYING ORCHARD.



A DEMONSTRATION IN IRISH POTATO SPRAYING.

of Agriculture "a college for all the people." It carries its work into every nook and corner of the state. Both mining and agricultural extension work have become significant features of the university. And while agricultural extension work has been more general and has been given more publicity, much has been accomplished through the mining extension work in the schools and communities of mining districts. The extension division also lends valuable aid in training the young people on the farms, and in developing community projects. It is through this department that the 4-H Club work has been developed in 40 counties and it is estimated that at least 250 rural communities have been encouraged to provide better schools, better churches and organized activities for the young people. The work of the extension division deserves, and has been given, nationwide recognition.

prise has proved most successful. Modern buildings have been constructed by boys and all the work is done by the students who are allowed to earn part, and in some cases all, of their expenses. Numbers of successful farmers in the state have gone out from this school, while other graduates have become farm managers and specialists along various agricultural lines. Ten boys from this school attended the recent vocational-agriculture contest held in Morgantown, 300 students having gathered at the West Virginia College of Agriculture for the contest.

The West Virginia Collegiate Institute, for negroes, is located at Institute. The president, John W. Davis, is developing a plan of service education, in which training along vocational, commercial, industrial and agricultural lines is made of great importance. The Institute co-operates with



ADMINISTRATION BUILDING, POTOMAC STATE SCHOOL.

While the College of Agriculture is of first importance among the state schools which have agricultural departments, there are other schools that are doing outstanding work. Potomac State School, located in the Eastern Panhandle, at Keyser, is making an enviable record. This school furnishes a notable example of what may be done with a small farm and limited equipment. It was established in 1902. In 1918, the importance of an agricultural department became apparent, and the state bought 129 acres of hill land to be used for practical demonstration purposes. From the outset, the school authorities agreed that the farm must be run as an

industrial and commercial businesses and students are required to spend part of their school time at work, outside the school, under foremen who keep a careful check on their work.

President Roosevelt said: "Our civilization rests at bottom on the wholesomeness, the attractiveness, as well as the prosperity, of life in the country. The men and women on the farms stand for what is best and most needed in our American life." It cannot be doubted that West Virginia farm youth are being given the best advantages that can be brought to them through the vocational-agricultural departments of its state schools.

National Chamber of Agriculture Organized.

Atlanta, February 2—[Special.]—Organization of a National Chamber of Agriculture was effected here this week for the purpose of acting as a clearing house for farm problems from all parts of the country, with branches operating under its supervision in each State. In the "keynote speech," B. S. Miller, a prominent planter and chairman of the board of the State Normal School at Athens, said that almost everything the farmer raises is produced at a loss, and that talk about relief must now be translated into action.

"We must use fewer acres and produce more on each acre," was the view of J. W. Shealy of Columbia, S. C., commissioner of agriculture. "The farmer must learn new methods; he must use the new implements, or else the good of any farm relief through legislation will be short-lived."

Governor L. G. Hardman; Dr. J. A. Burris, president of the Virginia Polytechnic Institute; Henderson Hallman, Mayor I. N. Ragsdale of Atlanta, Mrs. Rebecca L. Felton, former United States Senator; former Senator Hoke Smith and Chief Justice Russell were among the speakers.

Former Governor A. W. McLean of North Carolina was elected president, other officers being named as follows: Governor Hardman, Governor H. F. Byrd, Virginia, and S. Odenheimer, Louisiana, vice-presidents; W. C. Chase, Atlanta, executive vice-president; former Senator Hoke Smith, general counsel; Dr. E. H. Scott, Milledgeville, Ga., secretary; Frank C. Lowden, Illinois, chairman of the advisory board, and A. W. Dunlap, Ohio, Dr. J. A. Burris, Virginia, T. R. Preston, Tennessee, and Colonel Sam Tate, Georgia, vice-chairmen.

\$35,000,000 Textile Factor Merger.

Plans for the formation of a textile factoring organization, involving a \$35,000,000 merger and said to be the greatest organization of its kind in the world, have been announced in New York, the plan being to combine Frederick Viator & Achells, Inc., with Peierls, Buhler & Co., Inc., which the corporation acquired six months ago. The combined volume of the two concerns' sales last year is estimated between \$100,000,000 and \$200,000,000 and their combined resources at \$35,000,000. The new corporation is expected to factor for approximately 150 mills. No name has yet been selected for the new concern.

Thomas F. Viator will become chairman of the board of the new company. Robert G. Blumenthal, now head of Peierls, Buhler & Co., Inc., will be president. Thomas Smidt will be chairman of the executive committee, and John Fritz Achells, vice-chairman of the committee, as well as executive vice-president. The new board of directors will consist of the officers and Slegfried Peierls, E. H. Wolff, H. P. Howell, president of the Commercial National Bank and Trust Company; Henry Ittleson, president of the Commercial Investment Trust Company of New York; Vice-presidents Edwin C. Vogel and Phillip W. Haberman of the Commercial Investment Trust Corporation; T. Holt Haywood and Adolph Smidt.

\$30,000,000 for Mississippi River Flood Control.

Washington, D. C.—Plans are being made by the Mississippi River Flood Control Board for carrying out proposed flood control projects for the year beginning July 1, formulated on the basis of an expenditure of \$30,000,000, as provided in the War Department appropriation bill. Necessary rights-of-way for floodways and spillways will be acquired so that work may be pushed, proceedings having already been started for the condemnation of land for levees and spillways near New Orleans, and for a levee on the west side of the floodway opposite Cairo, Ill.

Work under the present fiscal year's program has been carried out along the main river where rights-of-way were

available. Levee construction and bank revetment are progressing and will require the expenditure by June 30 of the \$24,000,000 appropriated for that purpose. In the upper river, in addition to levee raising and enlarging, much revetment work is being done to stabilize the banks in order to aid navigation and prevent levees from caving. About \$11,000,000 is being expended this year for such work.

Developing Hydraulic Power Motor.

W. R. Mobley of Miami, Fla., according to reliable engineers' reports, has perfected a machine to produce unlimited power from a hydraulic principle. A contract has been let to H. A. Mugler Iron Works of New York City to build a working model which will be tested in Miami. No further details will be given out at this time.

18-Story Telephone Building for San Antonio.

San Antonio, Tex.—The Southwestern Bell Telephone Co., St. Louis, Mo., plans constructing a large central office building here, according to E. D. Nims, president. The structure, which will probably be 18 stories high, will be erected on a Martin street site, recently purchased by the telephone company. Automatic telephones are expected to be installed in this city within the next two years.

University of Mississippi Building Contracts Let.

Oxford, Miss.—Contracts have been awarded by the State Building Commission, Jackson, for constructing a new gymnasium, law building, cafeteria, athletic field house and pump house for the University of Mississippi here, to involve a cost of nearly \$350,000. Sandquist & Snow of Louisiana, Inc., Alexandria, were awarded general contract at \$310,514; Alonzo B. Hayden, Inc., Pass Christian, Miss., at \$32,000, for plumbing and heating, and the McCrory Electric Co., Memphis, Tenn., at \$5,392, for electrical work. Frank P. Gates Co., Jackson, is the architect.

\$30,000,000 Gas Line of 450 Miles Projected.

St. Louis, Mo.—Headed by the Standard Oil Company of New Jersey a syndicate has been organized to construct a \$30,000,000 gas line to carry fuel from the Monroe, La., gas field, to St. Louis, according to an announcement here. Other interests identified with the syndicate include the United Gas Co., Houston; Electric Power and Light Co., New York; United Carbon Co., Charleston, W. Va.; Columbian Carbon Co., New York, and the Palmer Corp., Shreveport, La. The Mississippi River Fuel Corp. will be organized to construct the proposed 450-mile line of 22-inch pipe and necessary pumping stations, for an initial capacity of 100,000,000 cubic feet of gas daily.

Destroying Taxes As Well As Timber.

"Reforestation is no longer a theory in the Pacific Northwest," states the St. Paul and Tacoma Lumber Co., of Tacoma, Washington, in its new booklet "Growing New Forests." "Co-operation between large timber owners, lumber producers, state and government is active, and a few large companies have made progress in reforesting their own lands." Among the many points emphasized in the booklet is one which the Southern states can well afford to ponder deeply. It is this:

"Idle lands are a burden to the community. They shift the load of taxation to other property or abolish public revenues entirely. Most of such lands are suitable only for growing trees. They represent a waste of taxes as well as of timber, for a future source of revenue is destroyed when the forests are cut and the territory abandoned. Fair, scientific taxes, properly adjusted to reasonable forest production, can make the forest a perpetual yield, both in lumber and in public revenues."

Lumbermen Giving More Attention to Machinery and to Improved Operating Methods.

A comprehensive study pertaining to machinery and methods in use by millmen, which the writer made during a recent tour of most of the states east of the Mississippi and including Ontario, Canada, emphasizes the changes undertaken to meet the increasing competition that is demanding close watch on production costs. It was found that a great number of mill owners during the past six months have turned their attention to the replacement and repair of present machinery.

Included in the study were 33 sawmills and 103 yard mills.

The number of tractors used in moving loads of lumber from the cars to sheds or from the sawmill to the stacks, was surprising, yet the number of horses in the larger yards was unusually large considering the savings which have been recorded through the use of tractors.

A yard superintendent, in discussing the tractor question said: "It was the savings effected by using a tractor and trailers that won the company over to using the tractor instead of horses. We now have two tractors and are well pleased with the greater savings possible through their use in our yards and hauling lumber from the cars."

In another yard conveyers were put into operation for unloading lumber from the cars. This yard was located on the railroad and conveyor lines were set up throughout the yards. One week after operation the manager said: "We have figured it out carefully and find we are able to unload a car of lumber in four hours less time than formerly, once the men are accustomed to the handling of the lumber on the conveyor system, and we do it with fewer men."

In discussing the possibilities of the roller bearing band mill with a sawmill superintendent he made the following interesting statement: "With this eight-foot mill fitted with roller bearings we are producing at least 5,000 feet more of lumber daily than with the ordinary nine-foot band mill formerly employed. We installed a ball bearing planer about two years ago and found that the production increased at least 15 per cent over the former bushing bearings. The bearings will not wear as rapidly as the bushings and tend to steady the cutter shanks and spindles; this leaves a much smoother job and the work can be done at a higher rate of speed."

In a discussion of the filing machine installed by another mill owner, this statement was made concerning it:

"We were slow to add the filing machine three years ago and purchased the smallest and cheapest model we could find. Within two years we had installed a much better and larger machine; in addition we are doing work for another mill in a nearby town which keeps our men busy. The savings in time will pay for the machine in around two years even with a production which is below normal. The outside work nearly pays for the operator, reducing the expense of the machine which we must admit is not exorbitant."

The tally meter has become almost universal in use in the majority of mills and yards. These little devices have for immediate reference the total feet produced. They are attached to rip-saws, moulders, matchers and planers and have come to be indispensable even in the smaller mills. The superintendent of an Illinois mill stated that the cost of the tally "paid for itself in a year in addition to producing a

By RUSSELL J. WALDO, Middleport, N. Y.

Some of the savings effected by the use of up-to-date equipment in lumber yards are here pointed out. Machinery that formerly was considered a novelty has in many instances come to be regarded as a necessity to the saw-mill industry. Frequently, the saving in labor charges has paid for the cost of the new equipment.

reliable record. To be without it now would be something like being without the telephone. A glance and one can determine the production for the day."

Lift trucks, for use in the mill where the lumber must pass through more than one machine, are fast becoming recognized as essentials in the industry. The platform is placed before a machine and the stock piled on it as it comes from the machine. When a load is finished the truck comes along, lifts

the load from the floor and moves ahead as another empty platform is left for loading. "This saves enough rehandling in a year to pay for the whole equipment used," was the verdict of one Massachusetts yard mill.

One millwork superintendent cited the improved conditions in his shop due to stepping up the speed of his dust-and-refuse collecting system. The increased suction removed particles that formerly were required to be swept into the throats of the system. The sawdust and shavings were taken into a specially screened tumbler and the sawdust sifted and stored in bins for shipment. The shavings were put into hoppers for use in the boilers while the kindling lengths and sizes were dropped into another bin to be sold by the wagon load. "It cost \$20 to step the motor up and we have been able to do away with one of our refuse cleaners in the mill. The additional power required is a minor object considering the saving made. In the band saw, the duct leading away from the saw was enlarged. This required a little more power but the job was handled more satisfactorily."

Several officials both of mills and yard mills have commented favorably on the electric portable blower for dusting out motors and machines. A few years ago this dusting was done entirely by hand with a long handled brush and the workers at that time believed it to be satisfactory. Now, "Our cleaner goes around the shop with one of these portable blowers," stated a mill owner in Mississippi. "With this little device he cleans out very effectively the accumulated dust of the machines and leaves them in good shape for oiling. The cleaners take their noon hour after the operators have returned to work. In this way the machines are cleaned and ready for immediate use. The dust collecting system operates for the entire day under this plan. We have figured that by carrying out this program through the noon period we save annoyance to the operators sufficient to pay for the equipment in a few months. In addition the cleaners work much faster."

Most of the shops were using the modern method of securing power through an individual motor installed on the machine, usually by chain drive from the motor. Where the belt is employed, it is stated that great care should be exercised to make sure the surface is alive and always gripping the pulleys, a little dressing being sufficient to save a great amount of power. A Michigan foreman says: "We have assigned belt dressing to our millwrights who carry a stick of dressing with them always in their endless inspection of machines."

It is increasingly evident that mill owners must turn their attention to machinery and methods which they can use to better advantage and to greater profit and this is the point the writer would emphasize.

Modern Methods Supplant Clay Refining System Devised by Chinese 4000 Years Ago.

By EDGAR W. BUCHANAN.

Norman G. Smith & Company, Incorporated, of Spruce Pine, N. C., have recently discarded a system of refining china clay which has been in use for more than 4000 years. The ancient system was adopted in this country 75 years ago when we first began to produce and use fine white clay, and has persisted until recently.

The chief problem in the refining of kaolin is that of classification, or removing sand and mica from the pure clay. In western North Carolina, where kaolin mining is one of the most important industries, most of the deposits are pure white. The usual method of mining is the hydraulic; that is, a powerful stream of water from a hose washes the clay from the deposits and carries it along with all impurities, through the beaters, which pound out the lumps, to the separating equipment. In the old system this consisted of a series of troughs about 60 feet in length, placed side by side and connected end to end, making a total length of from 500 to 700 feet. The mixture of water with the impure clay, in passing through this series of troughs, deposited most of the heavier impurities and carried the fine clay on to the end. Two or three men were employed to go daily over the settling troughs with shovels and remove the sand and other tailings. The system required much labor while the separation was incomplete, a considerable portion of the clay being lost with the tailings and some of the sand going over with the clay. In brief, it was costly, crude and inadequate, and therefore, out of step with modern industrial practice.

The kaolin mines are generally in the hills far from the railroad. Where this method was employed the clay, after leaving the troughs, was piped to the drying and loading plant alongside the railroad. Under the new process the mixture of crude clay and water is piped to the plant at the railroad just as it is washed out of the deposit. The work of separation is performed at the plant alongside the railroad by a new device known as a bowl classifier which takes the place of settling troughs, washers and beaters. No men are required to shovel out the tailings.

This bowl classifier consists of a settling box in the form of an inclined trough, with the upper end open; in it are placed mechanically operated rakes or scrapers for the purpose of removing the quick-settling material from the open end. Each rake is carried by two hangers, one at the sand-discharge end suspended from an arm attachment to a rocker arm or lever, which terminates in a roller; the other from a bell-crank which is connected by a rod to the same rocker. The roller is pressed against a cam on the crank shaft. The rakes are lifted and lowered at opposite ends by the action of the cams transmitted through the rocker arms and bell cranks, and the horizontal motion which carries out the sand is obtained directly from the crank.

Upon the lower side of this settling box is superimposed a broad, shallow steel bowl 20 feet in diameter, with stirring or thickening mechanism. The thickening is accomplished by the same process as the settling of the sand in the troughs. Revolving arms, to which plow blades are attached, sweep the bottom, pushing the quick-settling solids towards a central opening through which they fall to the bottom of the main classifier tank, and are subject to the action of the rakes. The feed enters the bowl through a shallow feed well near the center.

Wash water is introduced near the center of the main tank, and flows counter-current to the solids, up through the central opening of the bowl. The clay is overflowed into a peripheral launder around the rim of the bowl. It is obvious that the action of the plows and the rakes, together with the counter

flow of wash water, will produce a very complete washing and separation.

The bowl mechanism is operated by a light belt from an extension of the main drive shaft. The power is negligible. The plow arms are usually revolved at from one-half to eight revolutions per minute, according to the load of solids handled and the classification desired.

"Our Dorr classifier has proved a great success and saves us the labor of three men every day, also from three to five tons of clay," the superintendent of the plant stated when asked if it were successful.

After the process of classification is complete, whether it is carried out by the old method or the new bowl classifier, the refined clay must be separated from the water. In either case this is performed in large settling tanks. Here the water laden with clay is treated with sulphate of alumina, the clay is precipitated and the clear water discharged over the top. When the tanks are full of clay they are drained into a large vat from which the clay is pumped to a filter press, where most of the remaining water is squeezed out. From the filter press it is removed in the form of cakes, and is further dried in either of two ways. It may be laid on drying tables composed of steam pipes, or it may be loaded onto small cars and run into a drying kiln. In either case it is dried until its moisture content is reduced to about six or seven per cent of the total weight. It is then in the form of a fine white powder, similar in appearance to flour, and is ready for shipment.

\$24,784,000 Bond Issue by Chesapeake & Ohio Railway.

Washington, D. C.—The Interstate Commerce Commission has granted authority to the Chesapeake & Ohio Railway to issue \$24,784,000 refunding and improvement mortgage 4½ per cent gold bonds to be applied to the reimbursement of the C. & O. treasury for expenditures made in connection with the Chesapeake & Hocking Railway and other subsidiaries. The Chesapeake & Hocking was authorized at the same time to issue and deliver \$14,737,000 of common stock to the Chesapeake & Ohio, representing expenditures made by the latter in connection with the Hocking. After deducting \$9,200,000 from the proceeds of the bonds, the C. & O. Railway will use the remainder of the proceeds toward financing further improvements and additions which it has authorized to an amount of \$17,683,726. The Chesapeake & Hocking Railway plans to amend its charter to provide for an increase in its capital stock from an authorized issue of 700 shares of par value of \$70,000 to an authorized capital stock of 150,000 shares of par value of \$15,000,000.

A New Sulphur Deposit.

Joseph Lallande, of the Southern Pacific Lines, New Orleans, La., wires the MANUFACTURERS RECORD that the Jefferson Lake Oil Co., New Orleans, has discovered a sulphur deposit near Lake Peigneur in its efforts to locate oil. The company has been drilling for oil for some time in the vicinity of Jefferson Island without success and decided to make a test in Lake Peigneur about 1500 feet from land. The sulphur deposit was found at a depth of 75 feet and since that time the company has gone down 77 feet in the sulphur strata, but has not determined as yet the extent of the deposit, nor has a survey been made. The company does not propose to develop the sulphur deposit at present, its idea being to negotiate with some large sulphur company to lease or purchase its holdings outright, the oil company to continue its oil developments, says Mr. Lallande. The land in question belongs to the state of Louisiana and is being developed under lease, the state receiving royalties from any mineral mined or produced.

College Economists and Facts.

By SIDNEY M. EDELSTEIN, New York City.

The South in recent years has undergone one of the most remarkable economic and social transitions in history. From a vast agricultural community has been developed, over a comparatively short span of time, an industrial region of national importance. Farmers in the old day have become factory workers in the new. How this change has affected them; whether they have profited by it or lost by it; whether their status as human beings has been improved or not, are important social questions of the day.

Considering the numerous aspects of so broad a question, it is not surprising that many mis-statements, both oral and written, are made when it is dealt with, and allegations concerning Southern wage scales and the situation among Southern workers form a phase of the subject which probably has come in for more misunderstanding than any other. For instance, there comes to hand an article from a Southern university quarterly, which presents itself as a case in point. The author of this article, in the words of the editor, is "a Southerner by blood, birth and education, and is a close student of economics and an experienced writer. He is in the department of political economy of one of America's best universities." The Southern employer, this learned professor says, is, unlike his predecessor of a half-century ago, not an aristocrat, but one of the bourgeoisie. He is, it seems, "class conscious," and "money wise," seeking to draw across his materialism a curtain of philanthropy and social conscience, building up a program of welfare work in his mill villages, subsidizing churches, schools and Y. M. C. A.'s, together with their ministers, teachers and directors. His building of recreation centers, swimming pools and moving picture houses is seen as a part of this nefarious scheme of double-dealing. In furnishing doctors and nurses for his employees, and maintaining libraries, dairies and brass bands, he is acting with satanic intent. All of this, the distinguished professor maintains, has as its sole purpose that of lulling into passivity the "downtrodden" worker and postponing his demand for a wage scale which will equal that paid in the North. This professor goes on further to deplore the fact that the MANUFACTURERS RECORD, the Charlotte Observer, Lockwood, Greene & Co. and John E. Edgerton, president of the National Association of Manufacturers, have taken up the cudgels in defense of the South's program of industrial employment.

As a matter of fact, in the first place, the Southern mill worker, in general, is a native whose American forebears go back for many generations, in which they failed steadily at farming. As tenant farmers, they lived in the crudest sort of dwellings, often one-room shacks, into which their multitudinous families jammed themselves when occasion called them indoors. Their knowledge of sanitation was practically non-existent; cleanliness of person and habitation was rarely considered. The family's income from the farm was so erratic and uncertain that there was often not enough clothing even for comfort, not to mention decency. This is not an overdrawn picture.

From such life and condition, the mills have taken the tenant farmer and given him a four or five room house, neatly painted, with its yard and garden plot, electric lights, running water, bathtubs and, most important of all, a steady income greater than he has ever known before. The mill villages of the South are usually built adjacent to the mill on land which has been donated to the owner or sold at an extremely low figure, sometimes not more than \$5 an acre, and the workers who live in the villages are exempt from city taxes. Rentals on these houses are very low, \$1 per room per month, with lights and water furnished and fuel at the mill's cost, being a fair example. The houses them-

selves are of frame construction, usually raised above the ground on brick pillars, and adequately roofed. In many villages, an effort has been made to add to their attractiveness by diversifying the architecture of the dwellings. For their unmarried employes, both male and female, many mills maintain boarding houses where a room and three good meals a day may be had at an exceedingly low rate per week.

From the standpoint of living costs other than those mentioned, the Southern mill worker has a decided advantage over the Northern. The climate is one of his greatest assets, as it is to the mill. He requires less clothing, and clothing of the cheaper grade will meet his need. Fuel, if he doesn't use it extravagantly, costs him less, because he needs less of it. Weather conditions do not force costly layoffs.

In view of these facts—steady employment, low living costs, a decided advance in his living condition and an assured income—his somewhat lower pay in money is worth more to him, dollar for dollar, than the higher wage is worth to the Northern worker. Also, reasonable wages and uncurtailed working hours enable the Southern mill to operate profitably and, consequently, to keep the operative steadily employed.

Coming to other counts, the professor finds that the Southern employer, by "subsidizing" churches, schools and recreational centers, is thinly hiding the mailed fist. The truth is that no operative is hog-tied and dragged into his employer's subsidized church; he goes or not, as he chooses, and he believes what he hears or discards it as "bunk," as he likes. When he sends his children to the "subsidized" school, he is availing himself of an opportunity which was not even present in his former existence and they are given an education fundamentally on a par with that received by their employer's children in the city schools. The "subsidized" recreation centers afford a source of entertainment undoubtedly at least equal to that of scratching the brood sow's back, or whittling splinters back on the farm. And, as in the case of the churches, the operative doesn't have to use them; he isn't herded into the gymnasium with his fellows and put through a course of setting-up exercises.

"Unionism," the professor declared, "is greeted with abuse." To accept that statement, one must have the professor's definition of "abuse." Certainly, the unions are no more welcome in Southern industry than they are in the North, and the South has yet to hear of Northern textile mills inviting agitators to work among their employes. The attitude of the Southern employer to labor unions is precisely that of almost every other employer in the United States. When he takes steps to prevent the organization of his workers, he is protecting them as well as himself.

The labor supply of the South is barely touched, and for many years the manufacturer who operates in the South will secure his labor from the sources I have described and will lift them from poverty and uncertainty to comfort and an assured income. He will continue to teach them sanitation and personal cleanliness and thereby add to their life expectancy. And, no doubt, his critics, enshrined in their chairs of learning will continue to bombard him with statistics.

Additional Storage Facilities for Flour Mills.

The Kansas Flour Mills Corp., Kansas City, Mo., awarded contract to the Industrial Engineering Co., Kansas City, for erecting 36 tanks, 95 feet high, with 24 interstices, to provide storage of 1,500,000 bushels additional, which, it is said, will increase the capacity to 2,500,000 bushels and will cost \$450,000. Work is expected to be completed by June 15.

Southern Repudiated Bonds As Viewed From the Bondholders' Standpoint.

Boston, Massachusetts.

Editor Manufacturers Record:

Mr. Hoover, in his letter to you last fall stated that no limit can be set to the progress and ever-increasing prosperity of the whole South, adding a quotation to the effect that "the development of the South means the enrichment of the nation."

The MANUFACTURERS RECORD stands for that public morality in the South, the problem of which throughout America is, to quote Dr. Arthur Hadley, President-Emeritus of Yale University, writing last summer in the Yale Review, "primarily one of enlightenment."

The enclosed letter, which appeared in the Christian Science Monitor some months ago, refers to the unceasing but unavailing efforts which the creditors of eight Southern States have made during three quarters of a century to obtain payment of bonds issued by those states and repudiated in defiance of the Eighth Commandment and the United States' Constitution.

George Peabody, who donated millions to the cause of education in the South after the Civil War, included among those donations \$1,000,000 of Mississippi bonds and \$384,000 Florida bonds, defaulted since 1839 and 1842, respectively. In 1867 he wrote to the trustees of his Southern Educational Fund that "Mississippi cannot long disregard the moral obligation resting upon her to make provision for their payment."

Many millions of Mississippi and Florida bonds are held unpaid today in Great Britain, besides millions of bonds of the other repudiating states mentioned in the enclosed letter to the Monitor. Louisiana repudiated parts of her state debt on four occasions in the last century. Quantities of Arkansas bonds have been held in England for 90 years, and \$538,000 bonds of the latter state purchased by the United States Government in 1838, with the money bequeathed by James Smithson of London for the Smithsonian Institute, remained for half a century unpaid in the United States Treasury until in 1898 the "Act to authorize a compromise and settlement with the State of Arkansas" enabled the Secretary of the Treasury to deduct the above amount and \$255,000 additional due for other defaulted Arkansas bonds, from counterclaims put forth subsequently by that state.

Private creditors of the repudiating Southern states are unable to use the means that have been adopted by the United States Government to recoup itself also, by similar means, for the principal and interest due to it for defaulted bonds of the states of Florida and South Carolina (Settlements of 1902), and North Carolina (Settlement of May, 1928)—nor can they avail themselves of the provisions of an Act passed by Congress in 1870 (Section 3481 of the Revised Statutes) which prior to the above settlements, and subsequently in the case of the other defaulting states, the United States Government has been and is able to utilize to recover some of the interest due on unpaid bonds in the United States Treasury issued by defaulting states.

The text of that Act is given on page 14 of the enclosed reprint from the Fifty-fourth Annual Report of the Council of Foreign Bondholders in London.

Debarred from access to the United States Supreme Court by the Eleventh Amendment of the United States Constitution exempting states from prosecution by individuals, and thus unable to obtain redress for the tolerated violation of the contract clause of that same Constitution (Art. I, Sect. 10, par. 1), the aforesaid creditors hope for more concrete manifestations of the "development" of the South referred to by our President-elect, a development which he like the great philanthropist George Peabody would certainly not restrict to the mere material plane of physical prosperity.

A member of the World War Foreign Debt Commission, Congressman Charles E. Crisp, addressing the Ways and Means Committee, oblivious of the bonds of states of the Union (including his own state of Georgia), repudiated to the amount of over \$75,000,000, urged: "I want you to consider the character of the loan. It is a legal obligation. It is a loan that should be paid back up to the limit of the capacity to pay. The sacredness of international agreements must be preserved * * * I do not believe that the American people desire the American Government to collect more than the capacity to pay, and I say to you frankly that you could not get any more."

The wealth of the South now approximates \$72,000,000,000, the majority of which constitutes the riches of the repudiating states. The words of the honorable member of the Foreign Debt Commission are indeed eminently applicable nearer home.

George Peabody whom I have quoted above was as you

know a merchant in your city of Baltimore before he took up his residence in London. The recipient by Act of Congress of a gold medal from "The people of the United States in acknowledgment of his beneficent promotion of universal education," he would never have belittled his munificence by the donation of other than perfectly valid Florida and Mississippi bonds. Another \$1,000,000 of the same Mississippi Planters' Bank bonds are outstanding, mostly held in England, also several millions of Mississippi Union Bank bonds and contemporary Florida bonds are also largely held by the same English families which originally purchased them, many of whom are taxed to the hilt, and would welcome some new voice from Maryland reaching the Southern people on their behalf.

The Supreme Court of Mississippi, to its honor, upheld the validity of the Union Bank bonds in 1842, and again in 1852, when a unanimous judgment was rendered against the State Attorney General who appealed against a similar decision of the Superior Court of Chancery. The State however disregarded these judgments.

On January 5, 1841, the Select Committee of the Mississippi Legislature to which was referred so much of the Governor's recent message as referred to State bonds, reported to the House the following resolutions and recommended their adoption:

"Be it resolved by the Legislature of the State of Mississippi: That the State is bound to the holders of the bonds of the State issued and sold on account of the Planters' and Mississippi Union Bank bonds, for the amount of the principal and interest thereon. Further, That the State of Mississippi will pay her bonds, and preserve her faith inviolate. And be it further resolved, That the insinuation that the State of Mississippi would repudiate her bonds and violate her plighted faith is a calumny upon the justice, honor and dignity of the State."

On October 16, 1839, a year or so before the date of the above resolutions (which were vetoed by the Governor and forgotten by a more supine succeeding legislature), Daniel Webster had written to Baring Bros., bankers in London, as follows:

"The Constitution of the United States has declared that no State shall pass any law which shall impair the obligation of contracts * * * If it were possible that any one of the States should at any time so entirely lose its self-respect, and forget its duty, as to violate the faith solemnly pledged for its pecuniary engagements, I believe there is no country on earth—not even that of the injured creditor—in which such a proceeding would meet with less countenance or indulgence than it would receive from the great mass of the American people."

Mr. Hoover referred to the "development of the spirit * * * rounding out to a greater extent than we have ever known before a genuine Americanism." This higher Americanism to which the bondholders would fain appeal surely includes that elementary honesty which the "defender of the Constitution" so signally championed 90 years ago—unavailing, alas, so far as the above states are concerned.

E. F. BARRY.

In a subsequent letter Mr. Barry wrote:

"The enclosed page, reprinted from its Annual Report for 1907, shows that the Council of Foreign Bondholders in London shares your view as to the moral liability of the Federal Government in the case of the bonds issued after the Civil War by the governments imposed upon the South under the Reconstruction Act.

"I also enclose a copy of the history of debt repudiation in Florida as given in the memorandum on the subject issued by the Section of Statistics of the Treasury Department in 1925."

The memoranda to which Mr. Barry refers is from "Repudiation of State Indebtedness," from the Section of Statistics, Secretary's Office, Treasury Department, dated June 12, 1925, and reads as follows:

"Florida repudiated \$3,900,000 of bonds issued or endorsed for banks in the years from 1834 to 1839, and \$4,000,000 of bonds issued in aid of railroads in 1870 [under an act passed in January, 1855]. The issues were as follows:

Union Bank of Florida.....	\$3,000,000
Bank of Pensacola.....	500,000
Southern Life Insurance & Trust Co.....	400,000
Total	\$3,900,000
Jackson, Pensacola & Mobile R. R.....	\$4,000,000
Florida Central R. R.....	
	\$7,900,000

"The banks failed in the early '40s and the obligation of

meeting both principal and interest on the bonds was thrown upon the state. In 1840 the Judiciary Committee of the territorial legislature, to whom the question of the legality of these bonds was referred, passed a resolution: 'that the power of the Governor and Legislative Council of the Territory of Florida * * * does not extend to the creation of banks with exclusive privileges and franchises, nor to the issuing of bonds and guarantees in aid of such institutions * * * that such pledge of the faith and credit of the people of Florida is null and void.'

'Florida, consequently, entered the Union as a state in 1845 adhering to the doctrine that her new form of political life released her from these obligations. The state really had a much better excuse [sic.] for repudiating these bonds than those alleged. It was practically impossible for her to pay even the interest on these debts and meet her operating expenses, as the population and wealth of the territory were so small.

'The railroads defaulted on the interest payments early in the '70s. The State took possession of the properties, but was prevented from selling them by litigation. In the course of this litigation (1876) these bonds were declared unconstitutional. After this decision the State no longer troubled herself about the railroad aid bonds and subsequently omitted to mention them among her liabilities.'

Price Discrimination—The American Can Case.

According to a weekly bulletin of Ernst & Ernst, accountants, the important recent decision of the Supreme Court in the American Can Co. case is under close study by perhaps more companies than any other case since the cement and maple flooring decisions, which legalized certain statistical activities of trade associations. The statement follows:

'A rough summary of the decision is that manufacturers or other sellers of an article violate the Clayton anti-trust act if they discriminate in prices given to purchasers, when the discrimination tends to reduce competition between the purchasers. While there are many qualifications, nice interpretations and deductions, the decision will inevitably have important bearing on price policies of thousands of concerns.

'Two competing packing companies bought cans from the American Can Co. One was charged higher prices than the other and was less able to compete. It brought suit and won finally in the Supreme Court. The Court held that Sec. 2 of the Clayton act does apply to cases of price discrimination, the effect of which may be to substantially lessen competition or tend to create a monopoly in the line of commerce in which the purchaser is engaged. Formerly it had been assumed that the act applied only to discriminations affecting the vendor's line.

'There are certain exceptions to this new interpretation of the law. Price discrimination may be legal on quantity orders, or when there is a difference in quality or grade, or when the difference is based on cost of transportation, as when prices are quoted on a delivered basis. The reasons for these exceptions are fairly obvious.

'There are two more exceptions which may prove difficult of application, however. One is in cases where price discriminations are 'made in good faith to meet competition.' If a seller gives larger discounts to one customer than to another, when conditions are comparable, and this leads to a price war between sellers, and some buyers are caught at a disadvantage in the price war, then the situation may be illegal under this new interpretation. If, however, the price war is merely a result of natural competitive conditions throughout a territory or trade, then the situation is not necessarily illegal.

'Another difficult exception lies in the allowance of price discrimination when it is on account of difference in the cost of selling. These questions thereupon arise: What is the cost of selling? If some larger orders come without direct solicitation, is there no cost of selling? How are selling costs to be allocated among various orders or classes of orders? With the difficulties already existing in the field of sales accounting, it may often seem impossible to determine differences in selling costs among various orders.

'Many lawyers think that this American Can decision can be used by manufacturers who are hard pressed by their customers for price concessions, and that it may be an influence in modifying the 'buyers' market' under certain conditions. It also may turn out to be favorable to independent retailers as against chain stores. Many other applications will be apparent as the case receives further study.'

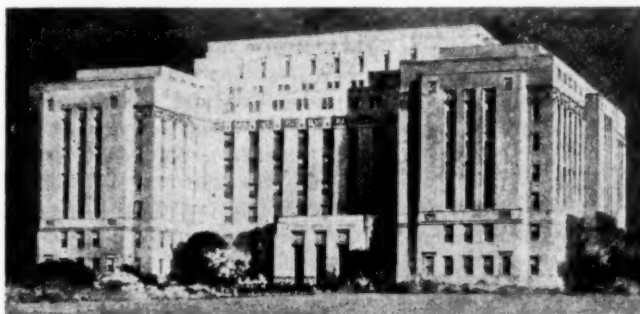
Bids Invited on \$3,250,000 Courthouse.

Bids will be opened February 25 by the Jefferson County Court House Commission, Oscar Wells, president, Birmingham, Ala., for the construction of a \$3,250,000 courthouse. The building will be 300 by 135 feet, 9 stories and basements. Holabird & Root, Chicago, are the architects and Harry B. Wheelock, Birmingham, associate architect. Contractors estimating include:

Southern Ferro Concrete Co. and the Foundation Co., both of Atlanta; Algernon Blair, Montgomery, Ala.; Angle-Blackford Co., Greensboro, N. C.; O. M. Gwin Construction Co., New Orleans, La.; Struck Construction Co., Louisville, Ky.; George A. Fuller Co., Washington, D. C.; Day & Sachs, Smallman Construction Co. and the Foster & Creighton Co., all of Birmingham, Ala.; Selden-Breck Construction Co., St. Louis; L. T. Wright & Co., San Antonio, Tex.; Mellon-Stuart Co., Pittsburgh, Pa.; United Engineers & Constructors, Philadelphia; Westlake Construction Co., St. Louis; L. W. Hancock, Louisville; Hunkin-Conkey Construction Co., Cleveland, Ohio.

The following contractors are bidding on the jail equipment: Pauly Jail Building Co., St. Louis; Van Dorn Iron Works Co., Cleveland; Stewart Iron Works, Cincinnati, O.; Fries & Son Steel Construction and Engineering Co., Inc., Covington, Ky.; Southern Prison Co., San Antonio, Tex.

The new courthouse has been so designed that another building may be erected on a site to the north of the structure, which will have the effect of balancing the present public library. Of steel frame and reinforced concrete pan floor



JEFFERSON COUNTY COURTHOUSE TO BE ERECTED IN BIRMINGHAM.

construction, the structure will rest on spread footings and provide space below grade for boiler and pump room, the ground floor to be partly below grade with 6 floors above it for various departments of the county administration. About 20,000 square feet of space is provided for storage of records, while the plans show the location of 17 court rooms, all of which will be acoustically treated. Two floors will be for county jail and the top floor will provide space for a law library and some mechanical equipment.

Including footings, the building will contain about 4,000,000 cubic feet, the typical floor plan providing some 35,000 square feet. The exterior will be of granite for the base and up to and including the first floor window sills, while approaches, steps, terraces, pylons and parapets will also be of granite. With the exception of the recessed spandrels, of dark gray terra cotta, the exterior will be of limestone. Entrances will be of bronze and all other exterior metal work of ornamental cast iron, including 3 flagpoles. Vestibules, lobbies, public corridors and public toilet rooms will have marble floors and walls.

Mechanical equipment will consist of three low pressure heating boilers, ventilation for court rooms and jail, 6 passenger elevators, 2 jail elevators, service elevator, push-button elevator, 3 electrically operated dumb waiters and one hydraulic ash hoist.

Colonel Sullivan "Made Two Blades Grow Where One Grew Before."

By THOMAS EWING DABNEY, New Orleans.

In Bogalusa they have been talking of one thing—in New Orleans, throughout the Florida parishes of Louisiana; at filling stations on the roads, in banks and business houses, in the schoolrooms, even in other parts of the United States: Colonel W. H. Sullivan is dead—the man who managed the mighty affairs of the Great Southern Lumber Company of Louisiana, and its related industries; who built a city in a wilderness and made of it a spotless town and a model; a man whose efforts had glorious fruition in civic community, state and even sectional development. Moreover, Colonel Sullivan was a man who gave away almost as fast as he earned, whose hand was always in his pocket for any public cause or any well-deserving private enterprise, who could have been a millionaire had he valued money, but whose savings will fall far short of that figure, because he valued more the doing of things for his fellow-man. His name is almost synonymous with reforestation and shone in the work of rehabilitating Louisiana after the flood of 1927; the personal friend of Herbert Hoover, with whom he stood shoulder to shoulder in the dark days of two years ago.

Colonel Sullivan is dead at 64. In the matured youth of his judgment and effectiveness; erect, bright-eyed, clear-skinned, with all the health of clean living, one would not have thought he was that old. He died early on the morning of January 26, the end coming after an illness of four days, during which he was confined to his home in Bogalusa. And when he was laid to rest all houses of business were closed, the Great Southern industries closed, the schools closed, and Bogalusa, a city of 18,000, mourned. Rev. W. C. Scott, pastor of the Elizabeth Sullivan Memorial Church, assisted by the other pastors of Bogalusa, conducted the funeral. The pallbearers were A. C. Goodyear, president of the Great Southern Lumber Company; Walter P. Cooke, chairman of the board; C. W. Goodyear, vice-president; Bradley Goodyear, director; D. T. Cushing, treasurer; M. L. Wuescher, auditor; A. C. Long, sales manager; R. H. Laftman, vice-president of the Bogalusa Paper Company; W. E. Farris, vice-president of the New Orleans Great Northern Railroad; M. J. McMahon, traffic manager of that line. There were no honorary pallbearers.

Colonel Sullivan was Mayor of Bogalusa, the only Mayor the town has had since it was incorporated in 1914, and no one has ever opposed him. He was vice-president and general manager of the Great Southern Lumber Company; vice-president of the Bogalusa Paper Company; vice-president of the New Orleans Great Northern Railroad; president of the Bogalusa Stores Company; president of the Bogalusa Turpentine Company; president of the First State Bank and Trust Company of Bogalusa, and a director in the Canal Bank and Trust Company of New Orleans; president of the Y. M. C. A.; president of the Long Leaf Yellow Pine Manufacturers' Association, and of the American Pitch Pine Export Company; president of the Bogalusa Chamber of Commerce; a past director of the Southern Pine Association; a member of the State Flood Control Commission. He had been chairman of the Flood Reconstruction Commission of Louisiana, and he was an alternate delegate at large to the last Democratic national convention. He was a Mason, a member of the Shrine, the Royal Arch and the Knights of Pythias. Last year he was offered the presidency of the Louisiana State Chamber of Commerce, but declined because of press of other duties.

Born August 9, 1864, at St. Catherine's, Ontario, Colonel Sullivan in his youth learned the carpenter's trade, and went to Buffalo to seek for better opportunities. Almost by chance he obtained a place under O. S. Garretson and became lumber inspector in Garretson's Buffalo School Furniture

Company, at \$9 a week. In six months he was in charge of the entire operations of the furniture plant, and his salary was \$3000 a year. As soon as he was eligible he took out American citizenship. In 1886, Garretson built a sawmill at Austin, Pa., and entrusted Mr. Sullivan with the responsibility of erecting it. At this plant Garretson planned to cut hardwood bought from F. H. and C. W. Goodyear, but Mr. Sullivan eventually bought out his interest and made a contract with the Goodyears to operate their logging road, and have charge of the woods work and later he built the Goodyear mill in Louisiana. The Great Southern Lumber Company began operation in 1907, with a capacity of 1,000,000 feet of lumber a day, and it was the largest sawmill in the world, until the construction of the Longview, Wash., mill in 1926. Colonel Sullivan was in complete charge of the operations from the beginning, and in 1927 the paper mill was opened, the second pulp and kraft paper mill in the South.

The company's great reforestation program was started by Colonel Sullivan in 1920, and now the Great Southern Lumber Company is conducting the largest reforestation development in the United States. It has 163,000 acres under contract with the state for reforesting. It planted this year 7,000,000 pine seedlings and that is to be its program indefinitely in the future. It is estimated to be enough to perpetuate the sawmill industry of Bogalusa; enough to assure the continued growth of what is already one of the more important cities of Louisiana.

So, the people of Louisiana today are talking about Colonel Sullivan. He worked wonders in the state.

\$1,000,000, 21-Story Church-Hotel Planned.

Memphis, Tenn.—Plans for a 21-story church-hotel to cost about \$1,000,000 have been tentatively accepted by the building committee of the Central Baptist Church and it is expected the general contract for the structure will be awarded within 60 days. The building will include a church auditorium to seat 1900, ladies' room, kitchen, gymnasium in the basement, and other facilities for church uses, in addition to a large number of hotel rooms and apartments. U. E. McCommon is chairman of the building committee; James J. Broadwell, architect, and George Mahan, Jr., associate architect, all of Memphis.

May Develop Texas Ore, Gas and Oil Properties.

Atlanta, Tex.—An optional contract has been made between the East Texas Iron Co., Shreveport, La., and Henry L. Doherty & Co., New York, which calls for the development of about 10,000 acres of iron ore, gas and oil properties in Cass County, near the Louisiana state line. The property has been investigated and shafted by an engineer to determine its iron ore possibilities and it is estimated that it contains more than 50,000,000 tons. Under the terms of the contract, the Doherty company will have 9 months in which to exercise its option for development work, it is said. H. A. O'Neal, Atlanta, represents the East Texas Iron Co. in the negotiations.

Warrior River Towboat Ready.

A Diesel electric towboat, constructed for the Tennessee Coal, Iron & Railroad Company, has been sent to the Warrior River in Alabama for service. The boat was built by the American Bridge Company at Clarion, Pa., and was outfitted by the Carnegie Steel Company of Pittsburgh. The Tennessee Coal, Iron & Railroad Company has several steamboats of the stern paddlewheel type in operation, but the new boat is of the tunnel stern, twin-screw wheel type. The power plant consists of two 550-horsepower Diesel engines manufactured by the New London Ship & Engine Company, each direct

connected to a 335-kilowatt, 250-volt, 250-r. p. m., direct-current generator. Each propeller is driven by a shunt-wound, double motor rated 400 horsepower, 140 r. p. m., 250 volts. All the electric equipment was furnished by the General Electric Company.

Power for auxiliaries and lighting, as well as for exciting the main generators and propelling motors, is furnished by two 40-kilowatt, 120-volt, compound-wound, direct-current, auxiliary generators. These are driven by the main engines and are mounted directly on shaft extensions of the main generators. Variable voltage, Ward Leonard, control is used, arranged for operation either from the pilot house or the engine room.

Foreign Trade Convention at Baltimore.

The outstanding feature of American international business last year was the development in the export of American manufactured products to the preponderating portion of 70 per cent of American export trade, declared James A. Farrell, chairman of the National Foreign Trade Council, in issuing the call for the sixteenth National Foreign Trade convention, to be held at Baltimore on April 17, 18 and 19. Mr. Farrell is president of the United States Steel Corporation.

A new feature at the meeting will be a conference of representatives of the 35 foreign trade clubs, export managers' associations and similar local groups of active foreign trade executives, to effect national collaboration in foreign trade policy and to stimulate more foreign trade activity. The subjects on which American foreign trade opinion will be expressed include "Economic Improvement in Europe," "Air Transport for Commerce," "Progress in the Far East," "Canada As Our Best Customer," "Investments in Latin America," "The Pan-American Highway and Its Connotations," "Imports in Payment for Exports," and "Shipping and Foreign Trade." Three merchandising sessions will enable delegates to discuss the technical problems of installment selling for export, new merchandising developments and credit insurance.

Informal sessions will be held by groups of bankers, credit, advertising and traffic men and educators at foreign trade schools of business from all over the country. The Trade Advisor service of the Council, which has settled hundreds of export problems by bringing the inquirer into direct touch with a recognized national authority at the convention, will cover all phases of foreign business and all markets in which the United States is engaged.

A unique feature of the convention will be a demonstration at the get-together dinner, April 17, of all modern methods of international communication, including telegraph, cables, telephone and radio, for which special wires and hook-ups will be provided at the Lord Baltimore Hotel, headquarters of the convention. It is anticipated that more than 2000 foreign traders will be present from all sections of the country.

Richmond May Get \$400,000 Chevrolet Plant.

Richmond, Va.—Negotiations are said to have been completed by the Chevrolet Motor Co., Detroit, Mich., for the acquisition of a large tract of land near the Boulevard and adjacent to the tracks of the Richmond, Fredericksburg & Potomac Railroad, for the construction of an assembling plant to employ about 200 workers and estimated to cost from \$250,000 to \$400,000.

Contract Let for 125 Caboose Cars.

Richmond, Va.—Contract has been awarded by the Chesapeake and Ohio Railway Company, W. T. Harahan, president, for building 125 8-wheel steel frame caboose cars, at an approximate cost of \$325,000, to the Hocking Valley Railway Company. The cars will be built at Logan, Ohio.

BALTIMORE BANKS MERGE WITH RESOURCES OF \$85,000,000.

Enlarged Institution Will Have 19 Offices in City.

Negotiations have been completed for consolidating the Baltimore Trust Co. and the National Union Bank of Maryland, the consolidation to create an organization under the name of the Baltimore Trust Co., with resources of more than \$85,000,000 and deposits in excess of \$65,000,000. According to terms of the agreement, which has been approved by the directors, stockholders of the bank will receive one and one-half shares of Baltimore Trust Co. stock for each share of their stock, the result of the exchange being that the Baltimore Trust Co. will increase its capital stock \$750,000 and its surplus \$750,000, so that the enlarged institution will have a capital stock of \$4,250,000 and surplus of the same amount.

Waldo Newcomer will resign as chairman of the board of the Baltimore Trust Co. to become chairman of the executive committee of the consolidated bank and Phillips Lee Goldsborough, president of the National Union Bank, will become chairman of the board of the Baltimore Trust Co. Donald Symington, president of the Baltimore Trust Co., will continue in that position with the enlarged organization. With the acquisition of the National Union Bank's offices, the Baltimore Trust Co. will have 19 offices in Baltimore, exclusive of the new \$4,000,000 31-story building under construction at Baltimore and Light streets.

British Cotton Shipments, 1928.

Manchester, England, January 14.—Exports of cotton yarns and manufactures from the United Kingdom for the twelve months ended December amounted to £145,304,242 and the total of manufactured articles to £578,628,519 compared with £148,794,942 and £563,913,782 in 1927. Shipments of cotton piece goods for the twelve months ended December were £107,300,045 representing 3,866,592,900 square yards, against £109,995,715 and 4,116,883,000 square yards in 1927. Quantities taken by the leading markets in 1928 and the increases or decreases compared with 1927 were as follows:

	Twelve months ended December, 1928. (Square yards)	Compared with 1927. Increase. (Square yards)	Decrease. (Square yards)
Bengal, Assam, Bihar and Orissa	710,112,000		214,830,000
Bombay	687,653,000	111,607,000	
China (including Hong Kong)	186,521,000	83,326,000	
Argentine Republic	148,922,000	17,745,000	
British West Africa	146,016,000	1,571,000	
Dutch East Indies	143,057,000	4,814,000	
Australia	143,010,000		44,503,000
Egypt	128,670,000		31,214,000
Switzerland	119,772,000		26,574,000
Madras	92,250,000	7,751,000	
British South Africa	69,197,000		3,984,000
Netherlands	66,189,000	124,000	
Foreign West Africa	64,412,000	10,991,000	
Straits Settlements and Malay States	62,561,000		14,999,000
Morocco	62,400,000	10,110,000	
Turkey	55,231,000		6,312,000
Brazil	55,192,000		5,825,000
Germany	52,611,000		24,707,000
Burmah	51,768,000		15,259,000
Iraq	48,536,000		31,603,000

The cotton yarns shipped during the twelve months ended December were valued at £22,566,493 for 169,211,600 pounds, compared with £23,608,368 and 200,464,700 pounds in 1927.

Wants a Carload of Peanut Seed.

J. D. Pace, secretary and treasurer of the C. L. Pace Transfer & Storage Co., Inc., Alexandria, La., in a letter to the MANUFACTURERS RECORD, says that the farmers of that area plan to plant about 5000 acres to peanuts, for which about a carload of seed will be needed. "I shall be glad if parties who handle peanut seed will write to me or to the Red River Cotton Oil Mill here, stating prices and the kind of seed they handle and when shipment can be made," Mr. Pace concludes.

IRON, STEEL AND METAL MARKET

Great Steel Activity Despite Uncertain Future.

Pittsburgh, February 4—[Special.]—In even more pronounced form than a week or two ago the steel situation presents a contrast, of great activity, plainly visible, in the current business, and of doubt or uncertainty as to the future.

As to activity, steel production has been increasing somewhat since the first of the year. Steel ingot production in December, according to the official report, was at 85.20 per cent of capacity, and the January report is likely to show close to 90 per cent. While in the production of steel there is still a leeway, in idle capacity some of the finishing branches are so well filled with business that deliveries on new orders or specifications are delayed, even by several weeks in some instances. Other finishing departments are lightly engaged, particularly plate mills, skelp mills and pipe mills.

In new buying of special character there has been a good run of business. Fabricated structural steel lettings reported last week totaled 66,000 tons, making the largest week for a long time. The average of lettings since the first of the year is well above last year's average pace.

Freight car buying, which was very light up to the fore part of November, has been at a relatively high rate since then. In the last week the Rock Island has bought 2250 freight cars, which makes 13,450 freight cars bought in three weeks, and about 32,000 in three months. In the aggregate that is not much business but it represents a good pace, and with inquiries that have just come out or are expected there is no little business in prospect. Rail orders reported in the last two weeks, after several weeks of little buying, are as follows: St. Paul, 50,000 tons; Nickel Plate, 22,800 tons; Southern Pacific, 7323 tons; Rock Island, 50,000 tons; Burlington, 49,300 tons; Illinois Central, 30,000 tons; total, 209,423 tons. However, the roads that have bought in this seasonal movement, which began late in September, have averaged about 10 per cent less tonnage than a year previous, some buying more and some less, while total purchases to date are 15 to 20 per cent below those at this date last year.

With the modern style of buying for prompt delivery, the state of mill order books is not in itself much of an indication for the future, but rates at which steel is being taken are an indication, in that no consuming industry is likely to slow down suddenly. The prospect is the other way about, indeed, for at this time of year seasonal increase in consumption in various lines is to be expected. Doubts as to the more distant future are based chiefly upon interest rates being high, tending to retard the inception of new building projects.

The automobile industry as a whole is running fairly well, some automobile and parts makers being very busy, others not nearly so busy. Chevrolet production is considerably below what was expected for this date, there being some difficulty associated with manufacture, not with sales.

Iron and steel prices present rather a mixed picture, there being no general stiffening or softening tendency, but rather a mixture of little trends. Scrap, which had had a further sharp advance at last report, heavy melting steel having sold at \$20 to two Pittsburgh district mills, has slipped off sharply, with two sales at \$19. Valley pig iron stays dull and there is some doubt about prices. In finished steel products, but little tonnage of merchant bars now sells at above 1.90c, which is also the minimum of the market, and that represents a weakening in the small lot market. On the other hand cold rolled strip makers advanced their price \$2 a ton, from 2.85c to 2.95c, effective February 1, and large rivets are being advanced \$4 a ton, from 2.90c to 3.10c. There has been a little shading in black and galvanized sheets and this is said to have diminished in the last week.

Metals in Favorable Situation.

New York, February 4—[Special.]—The second month of the year is entered under favorable auspices for the metals. All the major metals except tin are exceptionally strong in tone and higher prices are expected. Copper still occupies the stellar position but lead is conspicuous because of its scarcity and insistent demand while zinc is in a firm position with higher prices still being talked about and with consumers coming into the market to replace their stocks, most of which were bought last November.

The metals are sharing the prosperity of steel. January steel production, shipments and purchases were high for the first month of the year, in many cases new records. The railroads and automobile makers are purchasing large tonnages of raw materials, both ferrous and nonferrous.

Statistical position of the metals is very satisfactory. It is predicted that copper surplus stocks were reduced during January to a larger extent than they increased during December. Many consumers held up December shipments because of inventory which shoved more shipping ahead into the month just passed. Reserve stocks of lead in producers' hands are the lowest in years. World's visible supplies of tin are expected to show a January shrinkage of 1300 tons.

The minor metals as a class are in a weaker position than the major. The quicksilver price has not changed since a week ago when it was reduced to \$120. Silver prices stay well below 57c per ounce. Antimony on the other hand has been raised 1/8c per pound to 9 1/2c, duty paid.

Spectacular developments in copper are again coming to the front. It was reported late in the week that two or three large producers asked for copper for prompt shipment and were refused it by producers because of inability to furnish. Blizzards in Utah have interfered seriously both with mining and shipping of copper. Some say the January statistics when issued the middle of this month will startle the business world. It is probable that the surprise will lie in the large reduction of refined surplus stocks.

Total sales of copper for export in January are estimated at 160,000,000 pounds, a large total. It is also stated that 180,000,000 pounds will be bought by foreign users within the next few weeks for shipment during March and April. Domestic consumers are as a rule completely covered on March needs and 85 per cent covered on April needs. They are beginning to buy quite freely for May. Again predictions of nearby price advances are heard, one Wall Street authority claiming it will come in a week.

The brass makers have been the most active purchasers of copper over recent days but in view of the many electrification projects on foot on the part of both railroads and public utilities the copper wire business is increasing and much buying is expected from that quarter. As an illustration of the greater amount of copper used in automobile construction, the new model A Ford cars take 20 per cent more copper per car than the old model T's. Copper tubing used in the crank case of an automobile alone runs into many million pounds of copper a year.

On Wednesday the standard tin market reached new lows of 48 1/4c per pound, the deepest dip in several months. Straits tin in the outside market coincided with the low of the previous week of 48 1/2c per pound. The low over recent years has been 45 1/2c per pound. American tin deliveries in January were 8795 tons, next to the highest on record, they having been 8845 tons in February, 1924. This indicates a tremendous amount of tin going into consumption, despite rumors current in England to the effect that of this amount 1500 tons has been hidden in unofficial warehouses of the United States, a rumor denied by best-posted tin authorities here.

Lead gains in strength. Though the price has been 6.50c

per pound, East St. Louis, for several weeks, premiums of 2½ points are appearing for March shipment. Lead ore has sold at \$90 per ton, up \$5 from a month ago. Zinc sales have been the brisker in several months and the price is firm at 6.35c per pound, East St. Louis.

The price of zinc ore in the tri-State district has been at \$40 per ton since August but with the formation of a central ore selling agency in the tri-State district it is expected the price will be raised shortly.

Later:—Refined copper prices have been advanced ¼c per pound in both domestic and export descriptions, bringing prices to 17¼c, domestic consumers, and 17½c c. i. f. European ports. Copper wire and other finished products were marked up the same amount and so were all forms of copper, brass and bronze scrap. Further advances are expected.

More Iron Now Being Used.

Birmingham, Ala., February 4—[Special.]—Pig iron consumption is showing increase and deliveries are starting up again. Production has not been disturbed and quotation base is firm, \$16.50 to \$17 on No. 2 foundry. No business is yet reported for second quarter though an inquiry or two has been made. One of the largest melters of iron announces greater activity; cast iron pressure pipe makers, with plans to put some pipe on yards to meet an impetus which will start in shortly, are now instructing steady delivery of raw material. Removal of some of the surplus iron added to during the latter part of December is now in sight.

Blast furnace operations are satisfactory. Ten furnaces are producing foundry iron, seven basic and one special brand. The Republic Iron & Steel Company will blow in a second furnace at Thomas this month.

Reports are to the effect that there will soon be greater requirements of iron and that new business is coming in rapidly. Pipe is being shipped into territory where weather conditions are not obstructing the work.

The big shop of the American Radiator Company at North Birmingham is melting pig iron steadily. While no one in authority here has anything to say in reference to the prospective result on the merger with the Standard Sanitary Manufacturing Co., it is generally understood that a plant will be erected here to produce products of the latter concern, in addition to the radiation as now manufactured. The Standard Company's nearest shop to Birmingham is at Louisville and in the past more or less pig iron has been purchased in Birmingham. It is estimated that, with plenty of raw material right at hand and desirable labor, a shop here would be profitable and a splendid market could be worked up.

Republic Iron & Steel Company has had under consideration for some time the erection of steel mills in the district. Survey is said to have been made and raw material supplies studied. Industrial circles understand that effort would be made to acquire other properties in the district which would more than satisfy requirements for raw material. The Republic company has three blast furnaces, ore and coal mines, limestone quarry and a railroad line between the coal mines and by-product coke works.

New business is reported in hand by the merged Goslin-Birmingham Machine & Foundry Company. Bids have been offered on several large sized specifications. Other large foundry and machine shops of the district have been receiving contracts which have kept them active, with prospects bright for the future.

Steel fabricating shops are working on numerous small contracts and are comparatively busy. Birmingham concerns will ship and erect quite an amount of structural steel throughout the Southwest in the next few months, including buildings and works for a copper company in Texas.

The coal mining industry shows no improvement. The coke trade is steady with \$5 as the base on foundry. Alabama

coke is going into the Middle West for foundry use. Old material has changed but little so far this year. Plenty of scrap iron and steel is announced by dealers with the quotations practically unchanged, heavy melting steel, the best quality, bringing \$12.50 per ton.

Pig iron and iron and steel scrap quotations follow:

PIG IRON.	
No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces,	\$16.50 to \$17.00;
No. 1 foundry, 2.25 to 2.75 per cent silicon,	\$17.00 to \$17.50;
iron of 2.75 to 3.25 per cent silicon,	\$17.50 to \$18.00;
iron of 3.25 to 3.75 per cent silicon,	\$18.00 to \$18.50.
OLD MATERIAL.	
Old steel axles	\$16.00 to \$17.00
Old iron axles	16.00 to 17.00
Old steel rails	12.00 to 13.00
Heavy melting steel.....	10.50 to 12.50
No. 1 cast.....	14.50 to 15.00
Stove plate	13.00 to 13.50
No. 1 railroad wrought.....	9.50 to 10.50
Old car wheels	12.00 to 12.50
Old tramcar wheels	12.50 to 13.00
Machine-shop turnings	9.00 to 9.50
Cast-iron borings	9.00 to 9.50
Cast-iron borings (chem.)	13.00 to 13.50

To Build \$500,000 Steel Fabricating Plant.

Oklahoma City, Okla.—A new organization, the Oklahoma Structural Steel Co., plans to build \$500,000 plant here for fabricating structural steel and reinforcing bars for buildings, bridges, etc. Through H. C. Martin of G. A. Nichols & Co., the company acquired a tract of 15 acres east of Agnew avenue, between the St. Louis-San Francisco Railway and the Oklahoma Belt Railway. The main fabricating plant will be 500 by 100 feet, equipped with modern machinery for handling small as well as large jobs, while the completed plant will comprise a group of co-ordinated units, structural shop, ornamental iron work shop, and a building for handling reinforcing bars for concrete construction, the latter to be equipped with power bending and shearing machines. It is proposed to build two warehouses, about 150 by 150 feet, provided with track facilities, for storage and shipping purposes. Paul Huston, Oklahoma City, handled transactions of the company, including investigations relative to the development of the plant and general layout.

Cast-Iron Pipe Industry in 1927.

The Department of Commerce announces that establishments engaged primarily in the manufacture of cast-iron pipe in 1927 reported products valued at \$95,088,622, a decrease of 5.8 per cent as compared with 1925, the last preceding census year. Production for 1927 was distributed as follows: 1,388,338 tons of bell and spigot pipe, valued at \$54,338,352; 31,736 tons of flanged and culvert pipe, valued at \$1,810,278; 84,741 tons of fittings for gas and water pipe, valued at \$9,373,714; 486,340 tons of soil and plumbers' pipe and fittings, valued at \$25,520,548; 24,694 tons of castings, other than pipe and fittings, valued at \$1,959,298; other products, valued at \$2,086,432. Of 82 establishments reporting for 1927, 34 were located in Alabama, six in Tennessee, three in Virginia, two in Maryland, and one each in Missouri and North Carolina.

New Equipment for Illinois Central in 1929.

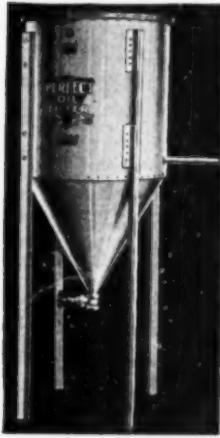
Contracts have not yet been placed for new equipment to be added by the Illinois Central System during 1929, according to A. E. Clift, senior vice-president, Chicago. The following new equipment is included in the 1929 budget:

- 6—70-foot steel mail and baggage cars, 15-foot mail apartment and 55-foot baggage and express apartment.
- 10—70-foot steel baggage and express cars, 5 to be equipped with stalls and wide end doors for handling race horses.
- 10—70-foot steel coaches.
- 8—70-foot steel chair cars.
- 700—40-ton composite automobile-furniture cars, 40.6 feet long, 10 feet high, 9 feet wide, 10 feet wide doors—staggered.
- 300—40-ton composite automobile-furniture cars, 50.2 feet long, 10 feet high, 8.6 feet wide, 10 feet wide doors—staggered.
- 750—70-ton self-clearing hopper cars.
- 750—50-ton self-clearing hopper cars.
- 200—50-ton, 45-foot long underframe steel cars.
- 25—steel underframe standard caboose cars.
- 15—0-8-0 3500-class switch engines.

NEW AND IMPROVED EQUIPMENT

Two Types of Oil Filters.

Bousman oil filters, products of the Bousman Manufacturing Co., Inc., Grand Rapids, Mich., are built in stock units, in batteries, and in special designs to meet particular conditions. Operating principle combines preliminary precipitation of heavier entrained sediment and water into a cone-shaped sediment chamber with final upward filtration through a dense, dry filter bed.



TYPE F-O FILTER.

Arrangement of filtering material is such that the oil is lifted away from the impurities by capillary or wick action, thus giving a pure filtered product with a minimum of attendance to the filtering material. The filters give long operating periods between necessary cleaning and repacking attention, the company says. Type F-O has been developed particularly for filtering crank case drainage oils for subsequent use as fuel oil. Type F-S is a four-pass filter extensively used by internal combustion motor manufacturers for filtering oil from test blocks before re-use.

Agitator Truck Body for Concrete.

The Blaw-Knox Company of Pittsburgh, Pa., among the pioneers in the development and manufacture of central mixing plants for ready mixed concrete, has been studying requirements for an adequate truck body for the transportation of mixed concrete from the mixing plant to the job, and has added to its line the agitator truck body, invented by the



BODY IN DUMPING POSITION.

Graham Brothers, contractors and ready mixed concrete dealers of Richmond, Va. The principle of the agitator truck body is considered simple.

The concrete is proportioned and properly mixed at a cen-

tral mixing plant and is then transported to the job in the agitator truck body, designed simply to keep the concrete constantly in agitation. The method of agitation is designed to prevent any segregation for any mix, whether dry or wet; the agitating mechanism not only stirs in the circular cross-section of the body, but also keeps the concrete in constant circulation along the length of the body, thus insuring complete agitation.

The use of ten agitator bodies for a period of 14 months at one of the most efficiently operated ready mixed plants in the United States is said to have demonstrated that there is absolutely no segregation and that the concrete is more workable. Complete manufacturing arrangements have been worked out, and the agitator truck bodies are now in production at the Blaw-Knox plant.

Operations of Concrete Surfacers.

For finishing and smoothing concrete, eliminating form marks, finishing and polishing marble, granite and similar materials, the Chicago Pneumatic Tool Company announces CP No. 33 concrete surfer, which it describes as especially well adapted for rounding corners and edges and bringing



CP NO. 33 FOR CONCRETE WORK.

stone to a highly polished surface. For concrete work, the attachments used include a No. 20 (coarse) grinding wheel with wheel head complete, and a cutting attachment consisting of a head with seven sets of steel burring wheels. A grinding wheel is used to smooth up or remove form marks from fresh or green concrete and is also used to give a pebble finish. When a finer finish is wanted, water is brushed on the surface before grinding. For finishing and polishing monumental and building stone, to obtain a polished surface, the company advises use of the wheel head complete, with following attachments: Use coarse grinding wheel, then wash surface; use medium grinding wheel, then wash surface; use fine grinding wheel, leaving sludge on the surface; use the tinner on the sludge, then wash; polish with felt buffer, using some polishing material. To produce a "steel finish" or to remove defects or marks from machine-polished surfaces, use a scroll wheel, preferably with crushed steel or some cutting compound.

In the design of the No. 33 Surfer, there are three major assemblies: Housing, cylinder, live air grip handle. It has three cylinders, 120 degrees apart, each cylinder being provided with its own valve of the piston type. Pistons and toggles are of the pin type and the vent tube is of the centrifugal ball check type, patents applied for. When the machine is at rest the ball check is seated, preventing the loss of lubricant due to oil moist or submerged vent. Any one of the three cylinders, pistons, rods or valves may be disassembled without disturbing the other two assemblies. Removal of the grip handle and one cylinder permits the removal of the crank-shaft. Speed light, R. P. M., 4000; size of arbor, 5/8 inch; weight, 15 1/2 pounds.

Bids on 6-Story Knoxville Office Building and Garage.

Bids will be invited about February 15 for a 6-story office building and garage to be erected in Knoxville, Tenn., by C. Neil Bass and Everett M. Clayton, both of Nashville. The structure will cover a site, 128 by 143 feet, and will be of reinforced concrete and brick. Hart, Freeland & Roberts of Nashville, are the architects.

GOOD ROADS AND MOTOR TRANSPORT

OIL PRODUCTS SHOW PROMISE FOR LOW-COST ROAD BUILDING.

Duty of Oil Industry to Develop Method of Construction, Says Road Official.

No agency is so well equipped as the oil industry itself to determine experimentally how best to use light oil products in low-cost road building, according to E. W. James of the Bureau of Public Roads. It is the commercial and economic duty of the oil industry, he says, to develop this natural resource. Further:

"The practicable large-scale commercial production of light road oils, so they may be purchasable on specifications for a certain definite use anywhere in the United States, is an industrial, and not a laboratory problem. The variety of adjustments possible at the refinery are ample to develop the conversion of all crudes available into products that will meet the market demands for materials of the respective base constituent."

Studies made by the bureau and by some of the states, indicate that the use of oil products promises to be the most successful and least expensive method for raising low-type road surfaces to a condition satisfactory to meet the public demand. Improvement of low-type roads, such as gravel, sand-clay and graded and drained earth, is one of the serious problems facing the highway engineer and the several states today.

The oil industry has largely confined its interests in highway construction, according to Mr. James, to production of asphalts required essentially in a limited range of high-type pavement in which it must compete with other materials also suitable only for such pavements. He says the industry has left practically unnoticed this huge field in which it would have almost no competition. As an index to the possibilities for the use of light oils, he cites the 1,175,000 miles of improved roads in the United States, of which over 600,000 miles are graded and drained only and have no surfacing. Over 300,000 miles are of gravel, little of which has been surface treated. Waterbound macadam, most of which has undoubtedly been surface treated, and bituminous macadam represent another 85,000 miles. In addition, there are some 1,825,000 miles of roads still unimproved, a certain fraction of which will be advanced into the improved class annually.

The estimated annual program of resealing and surface treating is set at 1,021,900 miles, 4800 of which are bituminous macadam, 30,000 waterbound macadam, 292,500 miles gravel, and 694,600 miles of graded earth and sand-clay. This mileage would require annually an estimated 8,470,000,000 gallons of surface treatment material. Adding to this figure the amount of treatment needed on the estimated 53,800 miles of unimproved roads brought to some degree of improvement each year would make the annual estimated consumption of surfacing material about 9,000,000,000 gallons or 36,000,000 tons.

Texas County May Vote on \$5,000,000 Bonds.

Beaumont, Tex.—Jefferson County Commissioners have tentatively outlined an improvement program to be submitted to voters within the next two months, which will involve a bond issue of from \$3,000,000 to \$5,000,000. Contemplated projects include a bridge across the Neches River at the Port Arthur-Orange highway, courthouse, paving College street extension, placing concrete on three miles of Port Arthur-Beaumont road outside of Beaumont city limits, concrete paving on West Port Arthur road through Spindle Top oil field and shelling lateral and main roads in all sections of the county.

Texas County to Vote on \$2,250,000 Road Bonds.

Liberty, Tex.—The Liberty County Commissioners Court has called an election for February 16 on a bond issue of \$2,250,000 for the construction of lateral roads, an amount sufficient to build more than 200 miles.

North Carolina May Increase Gasoline Tax to Provide for County Road Fund.

Raleigh, N. C.—A movement to increase the state gasoline tax one cent a gallon is approved by the State Highway Commission, with the reservation that the additional funds collected should create a special fund to be expended by the commission on county roads under an allotment based on the area and population of the various counties. Administration of the fund would provide for engineering aid in the construction of the proposed roads, road equipment, construction of bridges and maintenance work. The act would also permit the commission in its discretion to extend the state highway system.

\$4,500,000 Mount Vernon Memorial Road.

Washington, D. C.—The route of the proposed Mount Vernon memorial highway from the District of Columbia to Mount Vernon, for which Congress has appropriated \$4,500,000, will follow the Potomac River, according to the United States commission for the celebration of the two hundredth anniversary of the birth of George Washington. The route will begin at the Virginia end of the \$10,000,000 Arlington Memorial Bridge being constructed by the Arlington Memorial Bridge Commission and will traverse Columbia Island, pass under the highway bridge and railroad bridge shore spans and follow the Potomac as closely as topography, alignment, grades and plans for future development will permit. The distance will be 15.4 miles and construction will be handled by the Bureau of Public Roads. The right-of-way, except in Alexandria, will be 200 feet wide with a 40-foot pavement and two 10-foot shoulders. Where conformation of ground is more suitable, two 20-foot pavements will be constructed on different leads. Seven masonry bridges, to carry 60-foot roadways, with 5-foot sidewalks, will be constructed.

\$41,000,000 Road Expenditure Planned by Mexico—To Improve Highway to United States Border.

Mexico City, Mexico.—The Mexican Government will expend not less than \$41,000,000 from 1929 to 1934 on road construction, according to Sanchez Mejorada, engineer recently appointed Minister of Communications in the Portes Gil cabinet. At the end of this period Mexico's plan for an improved road from the United States border to Guatemala will have been accomplished, it is thought. During 1930 the expenditure is estimated to be \$6,000,000; in 1931, \$7,000,000; in 1932, \$7,500,000; in 1933, \$8,000,000, and in 1934, \$7,500,000. Main routes to be constructed or on which work has already been started, with estimated costs, include: From Ixmiquilpan to Linares, \$7,500,000; from Toluca to Guadalajara, \$3,500,000; from Puebla to the city of Oaxaca, \$3,000,000; from Puebla to Vera Cruz, \$2,500,000; from San Cristobal to Merida, \$5,000,000; from Guadalajara to the City of Chihuahua, \$2,500,000, and for minor sections to join existing roads.

The first contracts in connection with the 1929 Louisiana road construction program will be awarded by the Louisiana Highway Commission on March 12.



Superelevation of curves makes for safety in highway transportation at the higher speeds now customary.

FINANCING A STATE Road System WITH BONDS*

By

T. H. CUTLER,

Chief Engineer, Missouri State
Highway Department,
Jefferson City, Mo.

INASMUCH as a great deal of money is now going into road investments, it behooves us to consider the soundness of the various plans for financing state highway programs. It is desirable that we first look for the basic principle underlying highway development.

The highway, as well as the motor vehicle, is a part of the transportation machine. While we recognize the many social advantages coming from the development of the highway system, we find it difficult to measure their value in concrete terms. It is likely, however, that these social advantages exceed in their total value the economic advantages. We can, however, measure the economic advantages coming from the development of a state highway system by the saving which results therefrom to the traveling public. The value of the social advantages, would of course, be additional to that of the economic advantages.

Let us start this discussion by the assumption that every state has a contemplated road program. This program may be the reconstruction of part or nearly all of its present system or the widening of certain parts of its system to more nearly fit and keep pace with the constantly growing traffic needs. Or this program may mean the grading, bridging and surfacing of a system which is still partly in a dirt road stage.

Three Methods of Financing Possible.

Three methods of financing are possible in which the motor vehicle owner would bear the burden:

(1) A low rate of automobile license fee and gas tax, which after fixed charges of administration and maintenance are taken care of would allow a relatively small surplus of funds available for construction, and which could complete the system in a long period of years.

(2) An increased gasoline tax, license fee, or both, which would provide a large surplus that would be capable of completing the program as rapidly as is

consistent with economy and good engineering practice.

(3) The capitalization of the surplus from a low rate of gasoline tax and automobile license fee by the issuance of bonds in sufficient amount to complete the program as rapidly as is consistent with economy and good engineering practice. Either of the first two methods might be classed as a pay-as-you-go method; the latter, of course, as the bond issue method.

No investment in a public utility is justified from an economic standpoint unless the saving exceed the interest charge. Whether we borrow money to build state roads or whether we take it direct from the motor vehicle owners; we must reckon with this interest charge. Failure to appreciate this basic principle has misled many good road advocates and caused them to oppose the issuing of bonds for expediting road construction.

The pay-as-you-go advocates fail to realize that the burden carried by the motor vehicle owners must always include an interest charge whether the roads are built out of current revenues or out of bond proceeds. The millions of dollars contributed each year through license fees and gasoline tax come from the motor vehicle owners. They have the choice of keeping such money invested in private enterprises earning them six per cent or better, or of putting it into road improvements and getting in return transportation satisfaction. If motor vehicle owners withdraw money from their private enterprises and put it into road improvement, they must then relinquish the interest or dividends, which their money invested in private enterprises would have brought them. The relinquishment of such dividends and interest becomes a burden to be carried by the motor vehicle owners. Building roads out of current revenues does not eliminate this interest burden; for if a man's money is worth six per cent in his business, it is worth that much invested in roads or any other public utility.

Now the state can borrow money at a

lower rate of interest than an individual; so in reality the motor vehicle owners would be better off, if the professional money lender's money might be kept in the road investment, drawing four and one-half per cent interest and his own money kept in private business enterprises earning six or seven per cent.

Must Reduce Financial Burden on Vehicle Owners.

The real object that we are seeking to obtain, in building a state road system, is to reduce the financial burden on the motor vehicle owners. In other words, we are seeking those conditions that permit a minimum unit cost of transportation. This is the basic principle.

It is necessary that we have a clear understanding of the items entering into the unit cost of transportation. First we have the cost of the roadway, then the cost of owning and operating the motor vehicle. The cost of the roadway includes the cost of construction, the cost of maintenance, and the cost of amortization. In order to add these three costs, they must be stated in a common unit. For this purpose it is convenient to use annual costs.

Restating the first cost element, we have the annual cost of the roadway equals the interest on investment plus the annual maintenance plus the annual amortization charge. The cost of the roadway is made up of the following:

Cost of roadway equals interest on investment plus yearly maintenance plus amortization charge.

Likewise the cost of owning and operating the vehicle is made up of the following items:

Cost of vehicle equals interest on investment plus insurance plus license and taxes plus depreciation plus gasoline plus lubricants plus tires plus repairs and replacements plus storage plus driver's salary.

These are annual costs and can be

* Paper read before the Eighth Annual Meeting of the Highway Research Board, Washington.

readily added to the roadway annual cost to arrive at a total yearly cost of transportation. We have then:

Annual cost of transportation equals annual cost of roadway plus annual cost of vehicle.

There is an interrelation among these factors, such that a change in one brings about an opposing change in others and a consequent variation in the annual cost of transportation.

Many Factors Determine Cost of Transportation.

If the increase of any item brings about a decrease in the total cost of transportation, then it is good economy to make the increase specified. For example, it has been found, for certain traffic densities, that changing the surface of a gravel road to a higher type, while calling for a greater investment and therefore a larger interest charge, reduces the cost of maintenance; the cost of gasoline, lubricants, tires and repairs to such an extent that the total cost of transportation is decreased. It is the province of the highway engineer to bring about such an adjustment of these interrelated factors, that the cost of transportation will be reduced to a minimum.

If we can reduce the unit cost of transportation by issuing bonds and expediting the completion of the road system, then the bond method of financing the highways is the logical one.

It has been found by observation and traffic counts, that a few main roads carry the bulk of the traffic. State roads connecting principal population centers form the main arteries for motor traffic, and, though embracing a relatively small mileage compared to total miles of roads in a state, carry a large percentage of the traffic.

Should Construct State Systems in Shortest Possible Time.

Hence to serve best the interest of the motor vehicle owners, who pay for the roads, the state system should be constructed in a comparatively short time. It is cheaper to pay interest on a bond issue than to pay the excess cost of operating motor vehicles over unimproved roads.

In those cases where state roads are only partially improved and a large number of vehicles are traveling over them daily, it becomes economical to issue bonds to hurry the completion of the road system. For the purpose of illustration, let us consider the case of Missouri's road system, where we have a state system of approximately 7600 miles, about one-half completed. We have nearly 700,000 motor vehicles using these roads.

As nearly as we can estimate, the average mileage traveled by a Missouri car

is 6500 miles a year, giving us a total of over 4,500,000,000 car miles of transportation annually, of which at least sixty per cent, or 2,700,000,000 miles are on the state road system.

With our system only half completed at least 1,000,000,000 miles are traveled annually on the incompleted portion.

Penalizing Motor Transport by Incomplete Road Systems.

With an additional cost of two cents a mile for travel on this incompleted system, we are penalizing our traffic \$20,000,000 a year in excess cost of transportation; a loss of which would reduce to zero when the system is completed. During the period of construction the average annual loss would be \$10,000,000. If we spend ten years on the pay as we go plan which was our estimate in Missouri of the time necessary without additional funds, the loss to the motor vehicle owners would amount to \$100,000,000. With a bond issue such as we have

just voted, providing funds sufficient to complete our system in four years, the loss to motor vehicle owners, due to the non-completion of the system, will be reduced \$40,000,000, or a net saving of \$60,000,000 in favor of the bond issue plan.

Each state program should be worked out to fit the conditions existing in the respective states. In this short article I have attempted to lay down only basic principles and illustrate their application, without introducing the refinements that would be utilized in the preparation of some specific program.

We have also made no attempt to set a value on the many social advantages derived from an earlier completion of a state road system, but are convinced that this phase of the question is important and worth all of the interest on the bonds; in Missouri an item of \$2.80 a car a year, for the thirty-five year period before the last of the bonds are retired.

Imperative Need for 20-Foot Road Width

HAVING marked off pavements into one-foot sections, engineers of the Bureau of Public Roads, by watching the right rear wheels of passing vehicles, find that on straight and level roads of various widths from 14 to 24 feet, with shoulders in fair condition, passenger car drivers habitually maintain a distance of from 1½ to 4 feet between the outer wheel and the edge of the pavement. Truck drivers operate somewhat nearer the edge, but prefer not to approach closer than 1½ feet. Drivers will sacrifice clearance between their own and passing vehicles rather than drive closer to the edge than they instinctively feel is safe.

The Bureau's observations indicate that pavements less than 18 feet wide are decidedly too narrow since they provide no clearance for passenger cars or trucks operating in the usual paths. While the 18-foot pavement is apparently wide enough for passenger cars in two-lane traffic, it is not quite wide enough for trucks. The 20-foot width gives ample clearance for trucks and is not excessive for automobiles.

In moving down hill on light grades, traffic moves slightly toward the center of the road. Light down grades do not suggest reduction of speed, hence traffic takes the precaution of moving slightly away from the edge of the pavement. No such tendency was observed on heavy grades where the speed is reduced and the instinctive fear of the pavement's edge is lessened.

In rounding horizontal curves, traffic, in general, shifts toward the inside edge, but the trucks shift their courses toward

the inside of the curve less than passenger vehicles. Under all circumstances, truck drivers are found to adhere more closely to the edges of the pavement than operators of passenger vehicles. Traffic moving on the outside of the curve shifts its course farther in the direction of the inside than traffic moving in the opposite direction, which is limited in its choice of a course by the proximity of the edge of the pavement. Unless, therefore, the pavement is widened on the curves, the normal straight road clearance between the two lines of vehicles is reduced.

The used width of a pavement may frequently be considerably less than its apparent width, the observations disclosed. On straight roads, as well as on curves, the outer foot of the surfaced section is sometimes totally ineffective because of a bad shoulder. A closely set guardrail, a steep crown, a bad gutter, or an uneven, bumpy condition of the surface near the edge will cause the driver instinctively to seek the center of the road. In one case, a 24-foot pavement was found to have an effective width of not more than 20 feet because of the abutments of an overhead railroad bridge which were crowded close to the edge of the pavement.

Smooth, white concrete shoulders at the edge of a black surface seem to lure the traffic toward the side. Center lines on straight roads, as well as on curves, exert a marked separatory influence. However, such safety factors are advantageous as far as they go but it is necessary that the more heavily traveled roads should be of greater width.

CONSTRUCTION DEPARTMENT

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.

The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$40.00 a year.

Airports, Airplane Plants, Etc.

Ala., Huntsville—City planning establishing airport.

Ala., Decatur—Public Affairs Comm. and Kiwanis Club, John Patterson, interested in establishing airport.

Fla., Fort Pierce—City acquired 92-acre tract, Okeechobee Road, 5 mi. west of city; establish airport.

Md., Baltimore—Pimlico Airways, 717 W. North Ave., applied to Bd. of Estimates for space at municipal airport, temporary or permanent, for erection of temporary hangar and use of field.

Md., Baltimore—Bd. of Estimates receives bids Feb. 13 for bulkhead and fill at municipal airport; cone. bulkhead 4800 ft. long; 1,000,000 cu. yd. of dredging; steel sheet piling bulkhead 1800 ft. long; wood fence 3,500 ft. long; Chas. F. Goob, Ch. Engr. See Want Section—Bids Asked. 12-27-28

Md., Baltimore—Berliner-Joyce Aircraft Corp., capital \$1,000,000, incorporated; W. W. Moss, formerly with Curtiss Airplane & Motor Co., Pres.; Henry Berliner, V.-Pres.; Alexandria, Va.; Temple N. Joyce, V.-Pres.; care Townsend Scott & Son, 209 E. Fayette St.; acquired site adjacent to municipal airport; immediately erect \$250,000 plant, providing 50,000 sq. ft. floor space; move equipment here from plant at Alexandria, Va.; manufacture 3-passenger monoplane and small all-metal monoplane.

Mo., Anglum—Oscar Johnson receiving bids on \$17,000 hangar; J. S. Alberici, Boatmens Bk. Bldg., estimating on general contract. 1-10

Mo., Kansas City—Century Aircraft Corp., capital \$15,000, incorporated; F. E. Wilcox, 4821 Westwood Road.

Mo., Anglum—Von Hoffmann Flying School, Albert Von Hoffmann, Pres., erect 2 new steel hangars and brick barracks to accommodate 100 students at Lambert-St. Louis Flying Field.

Mo., St. Louis—St. Louis Air Terminals, Inc., capital \$1,000,000, organized, with Transcontinental Air Transport, Inc., care C. M. Keys & Co., 60 Broadway, New York, and Curtiss Flying Service, Garden City, Long Island, N. Y., each owning quarter interest, to acquire and develop airport project of Mark C. Steinberg & Co., Boatmans Bank Bldg., south of East St. Louis; Transcontinental Air Transport to use field of St. Louis station in forthcoming air-rail service from coast to coast and Curtiss Flying Service will establish flying school here; contemplating expending \$500,000 for constructing buildings at present, including hangars, flying school, dormitory, passenger station, restaurant, supply shops and general office building; work to begin immediately. 10-25-28

N. C., Durham—Chamber of Commerce interested in establishing Class A airport.

S. C., Camden—City Council acquired 160-acres for municipal airport; erect hangar, repair and reconditioning shop and other mechanical units.

Tex., Beaumont—City, J. W. Anderson, City Mgr., propose voting \$100,000 bonds in April for purchasing site and equipment for airport near business district of city; provide day and night landing facilities.

Tex., Dallas—Texas Air Transport, Inc., A. P. Barrett, Pres., Fort Worth National Bk. Bldg., Fort Worth, purchased 15 Travel-air, 6 passenger monoplanes, to be immediately placed in service; will immediately inaugurate 8 passenger lines in Texas, serving every city in state; from Texarkana to Dallas and Fort Worth; Dallas and Fort Worth to El Paso; Dallas and Fort Worth to Amarillo; Dallas and Fort Worth to San Antonio; Dallas and Fort Worth to Corpus Christi and Brownsville; San Antonio to Houston; Houston to Dallas and Fort Worth; Tom Hardin V.-Pres. and Gen. Mgr., to be chief operating executive. 1-31

Christl and Brownsville: San Antonio to Houston; Houston to Dallas and Fort Worth; Tom Hardin V.-Pres. and Gen. Mgr., to be chief operating executive. 1-31

Tex., Dallas—Morris Aviation Industries, capital \$200,000, incorporated; William Morris, 3611 Beverly Dr.; Lang Aviation School organized as subsidiary of Morris Aviation Industries.

Tex., Fort Worth—City, O. E. Carr, Mgr., let contract to Ellsworth Long, 1828 Tremont St., for additional hangar at Meacham Field, at \$21,561; metal, steel, 100x78 ft. 12-20-28

Tex., Odessa—Chamber of Commerce, Edward J. Wall, Mgr., advises \$50,000 will be expended for airport, equipped with modern steel hangar, administration building, pumps, lights, etc., on 240-acre tract, 2 mi. west of city on Bankhead Highway, near main line of Texas and Pacific Railroad; airport to be purchased by county and leased to operating company. 1-17

Va., Norfolk—U. S. Engr. Office authorized building artificial beach at Hampton Roads Naval Air Station, between runways 1 and 2; to be constructed of sand to be dredged from adussand bar lying off station's hangars; work by station's forces.

Bridges, Culverts and Viaducts

Proposed Construction

Ark., Newport—C. S. Christian, Ch. Engr., State Highway Dept., Little Rock, I. S. Headrick, of Bridge Building Dept., and George R. Hays, Sec., Jackson County Chamber of Commerce, completed survey for state-owned toll bridge across White River ferry, at Newport, Jackson County.

Kentucky—State Highway Dept. received low bids for 2 bridges. See Roads, Streets, Paving.

La., Gretna—Louisiana Highway Comm., Baton Rouge, considering bridge over Seventeenth St. Canal at Metairie Highway intersection, and maintaining 25 mi. road, east and west of Jefferson Parish; L. R. Ames, State Highway Engr.

Maryland—State Roads Comm., G. Clinton Uhl, Chmn., Baltimore, receives bids Feb. 12 for 5 bridges: Charles County—single 20-ft. span rein. conc. slab bridge; single 42-ft. span rein. conc. arch bridge, on road from La Plata to Dentsville, over Zekiah Swamp, Cont. Ch-61; single 14-ft. span rein. conc. slab bridge on road from Allen Fresh to Wicomico at Newport, Cont. Ch-63; single 34-ft. span rein. conc. arch bridge on road from Wicomico to Chaptico, at county line of Charles and St. Mary's Counties over Budd's Creek; St. Mary's County—single 20-ft. span rein. conc. arch bridge over St. Clements Creek, road from Mechanicsville to Morganza; L. H. Steuart, Sec.

Miss., Liberty—Amite County Bd. of Supvrs. will let contract in Feb. to rebuild Lindsay Bridge across Amite River, between Dist. 1 and 5; creosoted wood.

Miss., Myrtle—State Highway Comm., E. C. Downing, Dist. Engr., Holly Springs, plans bridge on Bankhead Highway, Lock Creek bottom; replace 2 narrow bridges.

Mo., Kansas City—C. E. Johnston, Pres., Kansas City Southern R. R., submitted plans for double track railroad bridge across Missouri River, near northeast city limits, about 3 mi. east of Milwaukee Bridge; estimated cost \$2,300,000; awaiting approval of War Dept., Washington.

Mo., St. Louis—City and Missouri Pacific R. R. Co., E. A. Hadley, Ch. Engr., Missouri Pacific Bldg., preliminary plans for rein. conc. viaduct to carry Oak Hill Branch of Ry., over Kingshighway, between Shaw Ave. and Accomac St., 3,850 ft.; L. R. Bowen, City Engr.

North Carolina—State Highway Comm. receives bids for bridges and approaches. See Roads, Streets, Paving.

N. C., Wilmington—City and Atlantic Coast Line Ry., J. E. Willoughby, Ch. Engr., Wilmington, plan \$72,000 rein. conc. bridge over railway, North Third St. 11-22

Okla., Roosevelt—State Highway Dept., Oklahoma City, preliminary plans for 6-span, 116-ft. rein. conc. bridge, Highway No. 14, Kiowa County, near Roosevelt; cost \$25,000; C. R. Mandigo, Highway Engr.

S. C., Charleston—Atlantic Coast Lumber Corp., Georgetown, S. C., and 114 Fifth Ave., New York, applied to War Dept., Washington, for approval of plans for railroad bridge across Little Pee Dee River, near Tindall's landing, 15 mi. from Marion; Fixed span, 14 ft. vertical clearance at mean low water, 12 ft. horizontal clearance; timber and wood pile bents.

Tenn., Guild—War Dept., Washington, D. C., approved plans Dept. of Highways and Public Works, Nashville, for bridge across Tennessee River near Guild.

Tenn., Nashville—City, S. H. McKay, Chk., authorized metal culverts in Fifty-first and Fifty-third Ave., Elkins to Park Ave.; W. W. Southgate, Engr.

Texas—State Highway Comm. receives bids for 2 bridges. See Roads, Streets, Paving.

Tex., Brownwood—Brown County, E. M. Davis, County Judge, receives bids soon for 250-ft. steel, conc. vehicular bridge across Colorado River, Brownwood-Brady road, cost \$175,000.

Tex., Dallas—Dallas County Commrs. Court, Charles E. Gross, County Auditor, receives bids Mar. 4 for proposed Cadiz St. Bridge across Trinity River, from levee to levee, over new channel of river, created under Trinity River reclamation, trafficway and improvement project, Dallas to Oak Cliff; extension on east side for relocation of railroad tracks, and for roadway, side of levee; 40-ft. roadway, two 4-ft. sidewalks; dirt fills to raise roadway from territory on either side of levees to grade of crest of levees; paved roads through river bottoms to bridge; rein. conc. or combination conc. and steel construction; plans by Supervising Engineers Rollins and R. H. Clinger, and Bridge Engineers F. D. Hughes and Jean Knox, approved by Court; plan Corinth St. Bridge. 1-31

Tex., Dallas—Southern Toll Bridge Corp. of Dallas chartered; Frank E. Austin, Republic Bk. Bldg.; operate 7 toll bridges over Red River between Texas and Oklahoma.

Tex., Fort Worth—City, O. E. Carr, Mgr., and Rock Island R. R. Co., R. H. Ford, Asst. Ch. Engr., Chicago, Ill., considering plans for proposed underpass on Fourth St.; estimated cost \$170,000.

Tex., Kountze—State Highway Comm., Austin, considering bridge over Neches River on Highway No. 8, between Hardin and Jasper Counties; requested permit from War Dept.

Tex., Leakey—See Roads, Streets, Paving.

Tex., San Marcos—Hays County Commrs. Court considering overpass over Missouri Pacific tracks near Summit Station.

Tex., Teague—State Highway Dept., R. S. Sterling, Chmn., Austin, making survey for underpass at T. & B. V. crossing, 1½ mi. north of Teague, Freestone County; road to be paved will connect with limestone pavement at county line, east of Mexia, and run directly to underpass.

Tex., Vernon—See Roads, Streets, Paving.

Tex., Ysleta—War Dept., Washington, D. C., approved plans, Alex. Gonzales, Ysleta, for international bridge across Rio Grande River at Ysleta; Wooden bridges with creosoted piling, cost \$12,000 to \$15,000.

Virginia—State Highway Comm., H. G. Shirley, Commr., Richmond, appropriated \$148,000 for free bridge across New River at Jackson's Ferry, on U. S. Highway No. 121, Lexington, N. C., to Fort Chiswell, Va.

W. Va., Swiss—War Dept., Washington, D. C., approved plans Nicholas, Fayette and Greenbrier R. R. Co., controlled by Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, Va., for bridge across Gauley River, about 8½ mi. above Swiss.

Contracts Awarded

Ala., Montgomery—City, J. M. Garrett, City Engr., let contract to Bosworth Smith Co., Shepherd Bldg., for bridge over Genetta Ditch, on Cleveale and Ave. 1-31

Ky., Jones—Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, let contract to Gould Contracting Co., Independent Bldg., Nashville, for bridge over Clear Fork River near Jones.

Miss., Hattiesburg—City Commrs., W. E. Estis, Commr., let contract to Lee W. King, McComb, Miss., \$17,350, for 2 conc. bridges.

Tex., Canyon—State Highway Comm., R. S. Sterling, Chmn., Austin, let contract to Womack-Hennings Construction Co., Sherman, \$12,783, for underpass under tracks of Santa Fe Ry. north of Canyon, Highway No. 32, Randall County. 1-17

Canning and Packing Plants

S. C., Hampton—J. B. O'Neal, Dr. Hugh Tuten, Committee for establishment of \$100,000 canning plant.

Clayworking Plants

Ga., Stevens Pottery—Evans & Howard Fire Brick Co., 920 Market St., St. Louis, Mo., reported, plans increasing production of Stevens Pottery, lately acquired, by 30%; properties include 4000 acres of kaolin and diopside; install additional machinery at brick plant. 1-10

Tex., Sulphur Springs—Thermo Brick Co., capital \$100,000, incorporated; Charles Cobb, Jr., Marshall; Howard Hicks, Sulphur Springs.

Concrete and Cement Plants

La., New Orleans—Lone Star Cement Co. of Louisiana, Scott Thompson, V.-Pres., let contract to W. Horace Williams Co., Inc., 833 Howard Ave., for pile foundation for fuel oil tank and to Dalgarn Construction Co., Inc., Louisiana Bldg., for tank; 10,000 bbl. capacity; piles driven; R. J. Elledge, Construction Engr., care company. 12-20-26

Mo., Kansas City—Kansas City Concrete Pipe and Products Co., Gus P. Main, Pres. and Mgr., 505 Land Bank Bldg., erect plant for production of concrete pipe and kindred products; brick and steel, 1-story; foundations being laid.

Cotton Compresses and Gins

Arkansas—See La., Kilbourne.

La., Kilbourne—Co-operative Gin Co., Eudora, Ark., plans \$20,000 gin; install five 80 saw air blast outfit; 110 h. p. oil engine with Paragon hydraulic press, Mitchell hull extractors and Pratt double rib huller; also improve plants at Eudora and Readland, Ark., cost \$25,000.

Tex., Corpus Christi—Agua Dulce Gin Co., construct \$10,000 warehouse on Galivan St., 98x140 ft.

Drainage, Dredging and Irrigation

Fla., Cedar Keys—U. S. Engr. Office, Jacksonville, receives bids Mar. 7 for dredging in Cedar Keys Harbor. See Want Section—Bids Asked.

Md., Baltimore—See Airports, Airplane Plants, etc.

N. C., Beaufort—U. S. Engr. Office receives bids Mar. 9 for dredging in Section V (Myrtle Sound, Cape Fear River) of Intra-coastal Waterway, from Beaufort to Cape Fear River. See Want Section—Bids Asked.

Tex., Brownsville—Cameron County votes soon on \$1,800,000 bonds for lining canals and laterals with concrete.

Tex., Galveston—U. S. Engr. Office, Maj. Milo P. Fox, announced expenditure of \$500,000 soon to be started on widening Sabine-Neches canal as first work on project calling for expenditure of \$1,000,000 authorized by government.

Tex., Raymondville—Willacy County Water Control and Improvement Dist. No. 1 let contract to Trinity Farms Construction Co., Mercantile Bk. Bldg., Dallas, Waxahachie and Harlingen, for canals, reservoirs, drainage structures, etc. 1-24

Va., Norfolk—U. S. Engr. Office, has low bid from American Dredging Co., Philadelphia, Pa., for dredging channel across Rock-landing Shoal in James River, at \$464,635.73. 1-17

Electric Light and Power.

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Alabama—Alabama Power Co., Birmingham, reported, negotiating for Pea River Power Co., Andalusia, and River Falls Power Co., River Falls.

Ala., Hayneville—Alabama Power Co., Birmingham, construct transmission line into city.

Ala., Millport—Alabama Power Co., Birmingham, reported, completing survey for right of way for power line from Gorgas to Mississippi line.

Ga., Blakely—Public Utilities of Georgia, care of J. E. Simmons, Mgr., Camilla, has plans by E. S. Killebrew, Engr., Albany, for power building; conc. footings, brick walls, struc. steel, steel sash and doors.

Ky., Louisville—Kentucky Utilities Co., Starks Bldg., offering \$8,150,000 first mortgage 5% gold bonds, Series 1, through Halsey, Stuart & Co., Inc., Chicago; company serves 180 communities with electric light and power, water, gas, street railway service; will acquire properties of Kentucky Hydro-Electric Co.; operations of company are controlled by Middle West Utilities Co., 72 W. Adams St., Chicago. 9-27

Maryland—Empire Public Service Corp. will be organized with Floyd W. Woodcock, V.-P. of Day & Zimmermann, Broad and Arch Sts., Philadelphia, as president; Edgar A. Feldtkeller, V.-P.; will acquire public utility properties with assets of \$35,000,000 operating electric light, gas, water, etc., in Maryland, Ohio, Kansas, Louisiana, Oklahoma, Texas and Colorado; properties are Electric Public Service Co., 28 La Salle St., Chicago; Southwest Utilities Corp.; Home Electric Light Co., Lonaconing; Antietam Electric Light and Power Co., Washington County; Midland Electric Light Co., Alleghany County; and Emmitsburg Electric Co., Frederick County; in Maryland electric power is supplied to Lonaconing, Barton, Midland, Emmitsburg, Boonsboro, Keedysville and Sharpsburg; physical properties include 647 miles of high tension transmission line, 273 miles of electric distribution lines, 106 miles gas transmission lines, 70 miles gas distributing mains and ice manufacturing plants with combined daily capacity of 2066 tons; financing will be handled by Yeager, Young & Pierson, Inc., and Pirnie, Simons & Co., Inc.

Md., Baltimore—Consolidated Gas, Electric Light and Power Co. of Baltimore, Lexington Bldg., offering \$10,500,000 first refunding mortgage sinking fund gold bonds, series G 4¾%, through Alex. Brown & Sons, Baltimore; Lee, Higginson & Co., Jackson & Curtis, both Boston; Brown Brothers & Co., New York; Spencer Trask & Co., Minneh, Monell Co., Inc., all New York; company does entire gas, electric light and power business in Baltimore, operations extend into suburbs and surrounding counties; steam for heating supplied to central business district of Baltimore; proceeds of these bonds together with additional cash to be supplied by company will be used to refund \$10,265,000 first refunding mortgage bonds, Series A 6% due Feb. 1, 1949.

Miss., Clarksdale—City plans installing white way system on Sundowner Ave.

Mo., Billings—Lawrence County Light, Water and Cold Storage Co., negotiating for 20 year electric franchise; city to vote Feb. 12 on proposition.

Mo., Licking—W. R. Fisher, Inc., Boatman's Bk. Bldg., St. Louis, reported, interested in construction of hydro-electric dam on Piney River nr. here; cost \$100,000; furnish power for towns in Texas and adjoining counties and will form lake for fishing.

Mo., St. Louis—Anheuser-Busch, Inc., advises are building but one power plant; construction of plant, excavation, etc., was started in Nov.; will be ready for operation in early part of 1930; complete cost of construction \$1,000,000; included in equipment to be installed are following: three 1072 h. p. boilers, Springfield Boiler Co., Springfield, Ill.; two 3750 kv-a. turbo-generators, Allis-Chalmers Mfg. Co., Milwaukee, Wis.; six coal pulverizers, Hardinge Co., Inc., York, Pa.; Pratt-Daniels air-preheaters manufactured by

Continental Gin Co., Birmingham, Ala.; ash hoppers, Allen-Sherman-Hoff Co., 223 S. 15th St., Philadelphia, Pa.; design and construction of plant under direct supervision of Anheuser-Busch Engineering Dept.; Ophuls and Hill, Inc., 112 W. 42nd St., New York City, Consol. Engrs.; Fruin Colnon Contracting Co., 502 Merchants Laclede Bldg., St. Louis, in charge of excavation, foundations and erection of steel. 1-31

North Carolina—American Electric Power Corp., 120 Broadway, New York, offering \$1,200,000 6% convertible gold debentures, Series A, through Bonbright & Co., Inc., New York, and A. C. Allyn & Co., Inc., Chicago; company organized under laws of Delaware owns or controls through subsidiaries group of properties supplying diversified public utility service in 281 communities in eastern North Carolina, Iowa, Virginia, suburban district tributary to Washington, D. C., and South Carolina.

N. C., Durham—Fiske-Carter Construction Co., Masonic Temple, Greenville, S. C., has contract for construction power plant for American Tobacco Co.; rein. conc., steel and brick construction; cost \$350,000; J. E. Sirmine & Co., Engrs. & Archts., Greenville, will have charge of letting contracts, purchasing equipment, etc.

N. C., Greensboro—City ratified 50-year franchise to North Carolina Public Service Co., Charlotte, for operating street cars, buses, furnishing electricity and gas. 12-27

N. C., Greenville—City considering installing white way from southern approach of bridge to business district.

N. C., Yanceyville—C. W. Coppersmith, Hillsboro, plans constructing 27 mile power line.

N. C., Wilmington—Tidewater Power Corp., incorporated; L. J. Poisson, 318 S. Third St.

Okla., Enid—City, reported, receiving bids for power plant for operation of water works, sewer disposal and white way system.

Okla., Tulsa—City, Frank O. Brown, Street Commr., install street lights in Walnut Park Addition.

Tex., Amarillo—Southwestern Public Service Co., Amarillo, and 1600 Walnut St., Philadelphia, reported, construct high line to Vega, via Bushland and Wildorado and branch line Conway to Groom; install distributing systems at Vega, Bushland and Wildorado.

Tex., El Paso—El Paso Electric Co., F. J. Gannon, Gen. Mgr., reported, expend \$3,000,000 during 1929 on increasing generating capacity.

Tex., Fort Worth—Texas-Louisiana Power Co., Fort Worth Club Bldg. (subsidiary of General Water Works and Electric Corp.), offering \$3,000,000 first mortgage 6% gold bonds, Series A, through Howe, Snow & Co., Inc., New York; E. H. Rollins & Sons, Boston; H. M. Byllesby & Co., Inc., Chicago; company upon completion of present financing will serve without competition 30,192 electric and gas customers and 4032 water customers in 141 growing communities in Texas, New Mexico, Louisiana and Kentucky, and through subsidiaries in Oklahoma and Arizona; artificial ice plants are operated in connection with electric properties in 14 communities and independently operated ice plants are located in Houston, Fort Worth, El Paso and Gainesville; proceeds to be used to reimburse company for construction expenditures to retire existing equipment obligations, for acquisition of additional properties and for other corporate purposes.

Tex., Houston—City extend Main St. white way system.

Tex., Mexia—City plans installing white way system.

Tex., Victoria—Central Power and Light Co., Frost Bldg., San Antonio, extend Victoria-Port Lavaca line to Austwell, Tivoli and other points in Refugio County.

Fertilizer Plants

Fla., Mayport—Mayport Fisheries Co., Inc., Charles S. Wallace, Pres., Moorehead, N. C., plans establishing \$200,000 plant for manufacture of fish scrap and oil.

N. C., Dunn—Premier Fertilizer Co., capital \$100,000, incorporated; George J. L. Metz, Dunn; Kenneth C. Royall, Goldsboro.

N. C., Morehead City—R. W. Taylor & Co., capital \$100,000, incorporated; J. C. and R. W. Taylor.

N. C., Washington—Phillips Fertilizer Co., Water St., plans erecting plant.

S. C., Greer—C. G. Gunter, Greenville, reported, acquired Greer fertilizer plant, formerly operated by W. M. Ellison.

Flour, Feed and Meal Mills

Fla., Jacksonville—Hagin-Peters Grocery Co., Foot of Hogan St., acquired branch plant of Red Star Milling Co., 2613 Liberty St., main office Wichita, Kan.

Ga., Savannah—Dixie Portland Flour Mills, owned by C. B. Stout, Goodwyn Ave., Memphis, Tenn., establish 2000 bbl. capacity self-rising flour mill in Continental Mills building, Indian Water and River Sts.; C. J. Marmann, Mgr.

Tex., El Paso—Globe Flour Manufacturing Co., capital \$1,000,000, formed by merger of El Paso Grain and Milling Co., Globe Ice and Cold Storage Co., and Globe El Paso Cotton Oil Co., all Old Fort Bliss; Will E. Keller, Los Angeles, Cal., Pres.

Foundry and Machine Plants

Ala., Bessemer—Pullman Car and Manufacturing Corp., Chicago, Ill., let contract to United Engineers and Constructors, Inc., 1401 Arch St., Philadelphia, subsidiary of United Gas Improvement Co., covering design and construction of car shops; includes car shop, 103x1512 ft., machine and truck shop, wood mill, wood car erection shop, lumber storage and paint shop; floor space approx. 400,000 sq. ft.; several small buildings for substations, offices, locker and wash rooms, yard tracks, sewers, water supply, fire protection, etc. 1-24

Ala., Birmingham—James B. Clow & Sons, 2024 Fifth Ave., N., issuing \$3,000,000 first mortgage and collateral trust 5½% serial gold bonds, Series A, through Illinois Merchants Trust Co., Chicago, Ill.; company recently acquired National Cast Iron Pipe Co., Birmingham, and now owns 95% of stock of subsidiary company of similar name organized to own and operate property; use proceeds this issue to retire short-term indebtedness incurred in purchasing National Cast Iron Pipe Co.

Ala., North Birmingham (Sta. Birmingham)—Alabama Boiler & Construction Co., Seventh Ave. and 13th St., incorporated; F. R. Metzger, E. L. Steel; has plant and completes purchasing additional equipment.

Miss., Clarksdale—Clarksdale Machinery Co., J. H. Hooks, Mgr., erect \$30,000 building for machinery department of plant; will triple space of company's quarters; 1-story, brick; work to begin soon.

Mo., Kansas City—Baldwin Harvester Co., G. T. O'Maley, Pres., acquired site at North Kansas City on north bank of Missouri River; begin constructing first unit of plant Feb. 20; obtained temporary location, consisting of 37,000 sq. ft. in building formerly occupied by Sears-Roebuck; employ 100 men at beginning of operations. 1-3

S. C., Spartanburg—Draper Corp., Hope-dale, Mass., receives bids at office of J. E. Strrine & Co., Engrs., Greenville, Feb. 12, for plant for assembling and distributing cotton mill looms; following contractors estimating: Fiske-Carter Construction Co., Masonic Temple Bldg.; Gallivan Construction Co., Gallivan Bldg.; Potter & Shackelford, Inc., Allen Bldg.; Morris-McKoy Building Co., Finlay Bldg., all Greenville; J. A. Gardner, 211½ N. Tryon St.; Southeastern Construction Co., 210 W. Second St., both Charlotte, N. C.; Gaston Construction Co., W. Airline, Gastonia, N. C.; A. K. Adams & Co., 542 Plum St., N. W., Atlanta, Ga.; J. W. Bishop Co., Worcester, Mass.; Caspar Ranger Construction Co., Holyoke, Mass.; C. M. Guest & Son, Anderson; Bryson & Webber, Andrews-Law Bldg., Spartanburg. 12-6-28

Tenn., Chattanooga—Lookout Boiler and Mfg. Co. increasing capital, \$200,000; John Stagnair, 519 E. Fourth St.

Tex., Houston—Reed Roller Bit Co. let contract to Houston Structural Steel Co., 3910 Washington St., for 1-story, struct. steel and corrugated iron warehouse, Mack St. and Avenue Q. 1-31

Va., Norfolk—Atlantic Machine Works, Inc., Frank H. Masi, Pres., 119 W. 25th St., increasing capital stock, \$10,000 to \$50,000.

Gas and Oil Enterprises

Fla., Tallahassee—Gas Co. of Miami Beach, Inc., chartered; C. S. Weaver, Bennett Crain.

La., Monroe—Carbon Gas, Inc., incorporated; Jas. A. Noel, 3102 Lovers Lane, Monroe; J. H. Mann, El Dorado, Ark.

La., Mangham—Oliver and Masters acquired 7 acre site for construction of \$185,000 carbon black and gasoline extraction plant; build pipe line.

La., Shreveport—See Mining.

La., Shreveport—Lyons Gas Co., Inc., chartered; C. H. Lyons, Ardls Bldg., Shreveport; E. M. Kinsey, Riverton, N. J.

La., Shreveport—Calatex Oil and Gas Co., capital \$100,000, incorporated; F. J. Katz, Giddens-Lane Bldg.; M. H. Smith.

Md., Baltimore—Asiatic Petroleum Co. (New York), Ltd., 65 Broadway, N. Y., constructing loading plant at Wagners Point with frontage on Patapsco River; Chicago Bridge & Iron Co., Chicago, has contract for all tanks; C. W. Schmidt, Hearst Tower Bldg., Baltimore, for office building and boiler house; Rhodes & Manuel, 90 West St., New York, for pier; Cyclone Fence Co., Waukegan, Ill., for fencing; Sanford & Brooks Co., South and Water Sts., for dredging. 1-10

Miss., McComb—Texas Oil Co., 919 St. Charles Ave., New Orleans, La., erect steel and conc. wholesale oil station on S. Broadway; cost \$12,000.

Missouri—Ozark Oil Co., Joplin, acquired Independent Oil Co., Springfield; Neff Oil Co., Miami, Okla.; Burney Oil Co., Miller; Ellis Cline Oil Co., Monett.

Mo., Billings—Gas Service Co., subsidiary of Henry L. Doherty, 60 Wall St., N. Y., reported, negotiating for gas franchise; city to vote Feb. 12 on proposition.

Mo., Springfield—Cities Service Co., controlled by Henry L. Doherty, 60 Wall St., N. Y., reported, acquired right of way for natural gas pipe line; will probably distribute through Springfield Gas Co.

Mo., St. Louis—Shamrock Oil & Gasoline Co., 4158 Geraldine St., erect 2-story distributing station and office on Goodfellow Ave.

Mo., St. Louis—Mississippi River Fuel Corp., Christy Payne, Pres., advises, surveys made for 450-mile welded 22-in. diam. pipe line with 5 pumping stations from Monroe and Richland gas fields of Louisiana to St. Louis to supply gas to industrial users; capacity more than 100,000,000 cu. ft. daily; company is not applying for franchise for distribution of gas through city but for right of way to cross streets or run along streets; cost of line \$30,000,000. 1-31

Oklahoma—H. F. Wilcox Oil & Gas Co., Tulsa, offering \$2,000,000 6% first (closed) mortgage serial gold bonds through Continental National Co., Chicago and New York and Commerce Trust Co., Kansas City, Mo.; company owns 4 casinghead gasoline plants with daily capacity of about 30,000 gal.; refinery in Bristow, Okla., tank cars, real estate, including office building in Tulsa and modern warehouse facilities; owns gas leases in Oklahoma, Kansas, Texas, Arkansas and Louisiana; proceeds to be used to retire funded debts outstanding to provide additional working capital and other corporate purposes.

Okl., Bartlesville—Ballard Drilling Co., capital \$50,000, incorporated; H. C. Ballard, R. M. Roberts.

Okl., Blackwell—Winchester Oil and Gas Co. construct gas line from Medicine Lodge, in Beaver County to Dodge City, Kan.

Okl., Hugo—Webb Oil Co., incorporated; C. L. and James C. Webb.

Okl., Oklahoma City—Cushing Refining and Gasoline Co., Cushing, advises report of constructing plant in Crescent Field in error; plant is not to be started in near future. 1-31

Tenn., Murfreesboro—Merry Maid Gas Mfg. Co., C. W. Covington, Mgr., Murfreesboro Bank and Trust Bldg., rebuild burned plant.

Tenn., Pulaski—Gulf Refining Co., Pittsburgh, erect bulk storage tanks, warehouse and garage on 3 acre site; cost \$35,000.

Texas—United Gas Co., Houston, Texas, offering 50,000 shares of preferred stock, \$7 cumulative dividend, Series A, without par value, through G. E. Barrett & Co., Inc., New York; combined leases and gas purchase contracts owned or controlled by operating companies covers gas rights on over 350,000 acres land in Texas and Louisiana; owns large holdings of proven gas acreage in Monroe gas field of Louisiana and in south Texas, and controls through stock ownership Duval Texas Sulphur Co., recently started operations; controls companies operating four complete and unified systems for production, transmission and sale of natural gas in Texas; properties constitute principal natural gas holding of Moody-Seagraves interests and are operated under management of United Gas Co.; controlled companies, Houston Gulf Gas Co., Dixie Gas and Utilities Co., Dixie Gulf Gas Co. and South Texas Gas Co.; serve directly or indirectly Houston, San Antonio, Austin, Beaumont and Port Arthur. 1-31

Texas—Texas Pipe Line Co., Texas Bldg., Houston, reported, let following contracts for pipe lines to N. A. Saigh Co., Builders Exchange Bldg., San Antonio; for 12½ miles 8-in. line, Corsicana; 17 miles of 19-in. Monahans; 46 miles of 6-in., San Antonio to San Marcos; cost \$92,000; all electric welded steel pipe. 10-11

Tex., Corsicana—Central Texas Refining Co., C. A. Middleton, Pres. and Gen. Mgr., acquired all properties of Kent Middleton Refining Co.; reorganized and increased capital to \$1,250,000; owns 3 refineries at Angus, Minerva and Brownwood; 160 producing wells, 200 miles pipe line, 30 filling stations and other properties. 1-31

Tex., Dallas—Burt Exploration Co. incorporated; R. E. Burt, Burt Bldg.

Tex., Houston—Shell Petroleum Corp., Shell Bldg., St. Louis, Mo., receives bids at office Feb. 8 and Engineering Service Corp., 923 Post Dispatch Bldg., Houston, receives bids at office Feb. 6 for constructing 3 wharves for Shell Petroleum Co. at refinery site. 1-31

Tex., Houston—Sinclair Refining Co., 45 Nassau St., New York, reported, enlarge plant on Ship Channel.

Tex., Odessa—Chamber of Commerce, P. O. Box 356, interested in establishment of oil refinery by outside capitalists.

Tex., Orange—Gulf Pipe Line Co., Frick Annex, Pittsburgh, Pa., construct heating and pumping plant on company's main oil line connecting Port Arthur refineries with Louisiana oil territory.

Tex., San Angelo—Meek Oil Royalty Co., capital \$50,000, incorporated; J. H. Meek, Jr., J. R. Neal.

Tex., Sweetwater—Gulf Oil Corp. of Pennsylvania, Frick Bldg. Annex, Pittsburgh, Pa., reported, has option on site for erection 5000 bbl. crude oil refinery.

Tex., Uvalde—Moody-Seagraves interests, 2028 D St., Galveston, reported, acquired interest in Tritex Gas Utilities Co., supplying city with natural gas.

W. Va., Charleston—Wiseman Gas Co., incorporated; Homer Wiseman, 138 Summers St.

W. Va., Weir—Elk River Oil and Gas Co., capital \$25,000, incorporated; J. A. Young, Weir; B. R. White, Clendenin.

Ice and Cold-Storage Plants

Fla., Ocala—Florida West Coast Ice Co., 57 William St., New York, let contract to J. Paul Jones, 3711 17th Ave., S., St. Petersburg, for design and construction of 75-ton ice plant, Osceola and May St.; 85x177 ft., 1-story, brick, stucco; have sidings on both Atlantic Coast Line and Seaboard Air Line Railroads, ice cars of both lines; cost approx. \$40,000; H. C. Maxwell, Supt. of construction. 1-24

Miss., Houston—R. E. Brand, Charlie Brand, B. H. Blaine, J. M. Gibbs formed stock company for erection of ice plant.

Mo., Kansas City—United Cold Storage Co., M. E. Poronto, Pres., 2101 W. Pershing Rd., Chicago, Ill., let following sub-contracts: Refrigeration work, Ball Ice Machine Co., 126 Chonto St., St. Louis, Mo.; insulation, Cold Storage Insulating & Equipment Co., Pershing Rd. and Hermitage Ave., Chicago, Ill.; E. W. Sproul Co., 310 S. Michigan Blvd., Chicago, Ill., has general contract; A. Epstein, Struc. Engr., 2001 W. Pershing Rd., Chicago, acting in capacity of Archt. and Engr. and awarding all contracts. 11-20

Okl., Temple—Southwestern Light & Power Co., E. R. Ernsberger, Pres., 517 Braniff Bldg., Oklahoma City, plans 20-ton ice plant; cost \$25,000.

Tex., Austin—Capitol Ice and Cold Storage Co., capital \$75,000, incorporated; Andrew J. Zilker, Jr., 206 W. 33rd St.

Tex., Del Rio—Southern Pacific Fruit Express, J. T. White, Gen. Mgr., San Francisco, Cal., subsidiary of Southern Pacific Co., W. Sproul, Pres., San Francisco, Cal., erect icing platform; 10x1,100 ft., conc. and frame; unloading platform and inclined conveyor 99 ft. long; salt storage house, 9x33 ft., with installation of icing and unloading machinery; receiving bids.

Tex., El Paso—See Flour, Feed and Meal Mills.

Tex., Houston—Pacific Fruit Express Co. let contract to Robert E. McKee, 1916 Texas St., El Paso, for alterations to icing facilities in Englewood yards of Southern Pacific Co.

Tex., San Antonio—Sunset Ice & Cold Storage, National Bk. of Commerce Bldg., let contract to L. T. Wright & Co., Builders Exchange Bldg., for ice plant; conc. and tile.

Tex., Taylor—City Comms. interested in establishing municipal ice plant.

Va., Fredericksburg—Central Atlantic States Service Corp., 40 Globe St., Newark, N. J., New York City, acquired National Ice and Fuel Co. and R. E. Smith Ice plant; National Ice and Fuel Co. to be enlarged to double capacity.

Iron and Steel Plants

Tex., Lockhart—Lockhart Steel Co., capital \$200,000, incorporated; M. H. Reed, Holland Page.

Land Development

Ala., Birmingham—Dr. B. S. Lester, Martin Bldg., acquired 32 acres on Shades Mountain.

Ala., Gadsden—Cheseman Land Co., Inc., capital \$25,000, chartered; Ben Cheseman, Bernard Steiner.

Ark., Postelle—S. W. Sterling, West Memphis, reported, acquired town site of 1900 acres, 50 tenant houses and gin.

Fla., Bartow—Manning Hall Co., incorporated; M. D. Wilson, L. V. Sims.

Fla., Clermont—Clermont Corp., incorporated; I. F. Kern, C. H. Lester.

Fla., Daytona Beach—Raymond and DeCunbe, Inc., chartered; F. M. Raymond, 208 Cypress St.

Fla., Fort Lauderdale—South Florida Grove & Farms Co., capital \$100,000, incorporated; S. E. Lawrence, C. H. Pfuntner.

Fla., Miami—Balmar Realty Corp., capital \$25,000, incorporated; Joseph Hirschman, Congress Bldg.; E. R. Allard.

Fla., Miami—City develop recreational park and playground in Little River section.

Fla., Miami Shores—Forest Hills Burial Park develop 80 acre park under direction of L. B. Stevens.

Fla., Stuart—Paul M. Hoenshel, Mgr. Phipps property, Port Mayaca, will plant 500 acres in oranges.

Fla., West Palm Beach—G. and M. Holding Co., capital \$25,000, incorporated; G. D. Raymond, P. W. Foster, 31st St.

Ga., Atlanta—Parks Committee soon begin work on 18 hole golf course at Peachtree-Battle Memorial Park.

La., Lafayette—Billeaud-Reaux Land Co., Inc., chartered; John R. Reaux; George L. Billeaud.

La., Crowley—Jennings Golf Club, R. E. Meiner, Chrmn., interested in development of golf course.

La., Morgan City—Citrus Land Co., incorporated; J. E. Patterson, John A. Kruse.

La., New Orleans—Elwood Memorial Park, Inc., chartered; Clyde R. Millet, 808 Union St.

Md., Annapolis—Davis-Smith Realty Corp., incorporated; Ridgely P. Melvin, 24 Church Circle.

Md., Baltimore—James Keely Realty Corp., 3529 Edmondson Ave., incorporated; James Keely.

Md., Baltimore—The Eckels Brothers, Inc., chartered; Henry F. Eckels, 3509 White Ave.

Mo., Kansas City—Daniels Realty Co., capital \$150,000, incorporated; C. E. Whitaker, 1100 Grand Ave. Temple.

Mo., St. Louis—Pinto Springs Land Co., incorporated; E. W. Sieboldt, Shell Bldg.

Mo., St. Louis—G. A. P. Realty Co., capital \$50,000, incorporated; Leo F. Abrams, Chemical Bldg.

N. C., Sylva—Sylva Country Club, Inc., capital \$30,000, chartered; C. W. Denning, D. G. Bryson.

Okla., Oklahoma City—Alexander Realty Co., capital \$500,000, incorporated; E. E. Westervelt, Pioneer Bldg.

Okla., Oklahoma City—John J. Harden, Inc., improve Rose Hill Cemetery; construct ornamental entrances, rest rooms, etc.

Tenn., Memphis—Taylor Realty Co., capital \$50,000, incorporated; M. L. Nierman, 982 Madison St.

Tenn., Memphis—U. S. Gray & Co., capital \$25,000, incorporated; J. C. Rainer, 120 East Parkway, N.

Tenn., Memphis—Civic Improvement Club interested in development of golf course.

Tex., Corpus Christi—L. R. Meade develop 40 acre subdivision beyond Southwest Heights.

Tex., Corpus Christi—A. C. Erwin, Nixon Bldg., develop 30 acre subdivision; install water, sewer, paved streets, gas mains, etc.; expend \$35,000 on first section; J. Rogers, Gen. Contr.; J. C. Norby, Sewer Engr., 1001 Ayers St.; Blucher Engineering Co., Constr. Engr.

Tex., Dallas—Dallas Country Club, Beverly Drive, develop 18-hole golf course.

Tex., Houston—E. H. Fleming & Co., Humble Bldg., install sewers, sidewalks, curbs, gutters, water, electric lights, etc., at Chevy

Chase.

Tex., Houston—Roy Nichols, First Natl. Bank Bldg., develop 46 acres on Main St. for subdivision; install water, streets, sewer, gas, etc.

Tex., Houston—City, H. L. Mills, Business Mgr. Schools, expend \$30,000 for landscaping school grounds.

Tex., Marshall—Dr. Arthur Smith, Lake Bldg., developing 65 acres on Jefferson Highway for subdivision and golf course; build scenic lake, install 2500 ft. hard surface streets, sewer, water, natural gas and electricity; Frank Daugherty, C. E.; Earl Scott, grading contr.; Harry Thompson, Landscape Archt. 1-10

Tex., San Antonio—Nogallitis Heights Co., capital \$75,000, incorporated; Charles Graebner, Frost Bldg.

Tex., Tornillo—Tornillo Realty Co., incorporated; C. A. Mebus, A. J. Peterson.

Va., Norfolk—Stone Bros., Paul Stone, Arcade Bldg., developing subdivision on Lafayette River; install water, sewers, streets, etc.

Va., Roanoke—Villamont Land Co., capital \$50,000, incorporated; S. R. Mason, Liberty Tr. Bldg.

W. Va., Elkins—T. P. Bowers, Edom, Va., plans development of caverns on Spruce Knob Mountains.

Lumber Enterprises

Ark., Pine Bluff—Stout Lumber Co., Rector Bldg., acquired Pine Bluff Lumber Co.; changing name to Arkmo Lumber Yards.

Fla., Limestone—Milton Yellow Pine Co., incorporated; A. E. Melton.

La., Erath—Gary Lumber Co., Inc., capital \$20,000, chartered; J. Sidney Gary, Andrew Broussard.

La., New Orleans—Industrial Lumber and Supply Co., Inc., capital \$15,000, chartered; Clay Lane, 630 Bertrand St.

Miss., Clarksdale—Virden Lumber Co. erect office and quarters for lumber plant to cost approx. \$26,000; work to begin in 30 days.

Mo., Kimmswick—Jefferson County Lumber Co., capital \$50,000, incorporated; George E. Kottmeier, 5514 Herbert St., St. Louis.

Mo., Oregon—Oregon Lumber Co., capital \$40,000, incorporated; Harry L. McIntire, Oregon; I. H. McIntire, El Dorado, Kan.

Va., Chatam—Pittsylvania Lumber Co. considering enlarging plant and output.

Va., Rocky Gap—Fisher Flooring Co., Inc., capital \$50,000, chartered; G. W. Layman, New Castle.

Va., Stuart—Stuart Lumber Corp., Joel E. Marshall, Pres., increasing capital stock, \$25,000 to \$75,000.

Mining

Fla., Mulberry—Coronet Phosphate Co., 99 John St., New York, and Plant City, Fla., H. F. Greene, Mgr., advises regarding mining operations, purchased dragline, with 150-ft. boom and 7-yd. bucket, from Bucyrus-Erie Co., South Milwaukee, Wis., to be used in stripping overburden; install steel washer, superstructure to be furnished by Ingalls Iron Works, Birmingham, Ala.; washer and equipment by Georgia Iron Works, 605 12th St., Augusta, Ga.; engineering and construction work by company's forces. 1-10

Fla., Palm Beach—Quarry Keystone Co. of Palm Beach incorporated; J. L. Moore, Comeau Bldg.

Ky., Garfield—E. R. Near, Chicago, Ill., and associates, acquired Garfield Rock Asphalt Co.'s property in Beckenridge County; consists of approx. 500 acres of asphalt deposits, equipped with modern machinery, on Louisville Henderson and St. Louis Railroad, near Garfield.

La., Abbeville—Jefferson Lake Oil Co., New Orleans, discovered sulphur deposit in Lake Peigneur while drilling for oil about 1500 ft. from land at depth of 75 ft.; have drilled to depth of 77 ft. in sulphur strata; no survey made; company negotiating with sulphur company to lease or purchase holdings; land owned by State of Louisiana and being developed under lease; R. J. Abshire, 3245 Ponce de Leon, New Orleans, interested.

La., Shreveport—Henry L. Doherty & Co., 60 Wall St., New York City, has optional contract from East Texas Iron Co. providing for production of iron and development of oil and gas on lands of East Texas Iron Co., comprising approx. 10,000 acres in Cass County; land estimated will produce 50,000, 000 tons of high grade ore; H. A. O'Neal, Atlanta, directing negotiations for East Texas Iron Co.

Mo., Joplin—Lucky Tom Lead and Zinc Co., capital \$20,000, incorporated; C. H. Mantey, Mound City, Kan.; C. I. Rogers, Joplin.

Tenn., Johnson City—East Tennessee Limestone Quarries, capital \$20,000, incorporated; Reba Offinger, C. M. Rising.

Va., St. Paul—Granite Corp., incorporated; S. F. Ellington, Fred B. Greer.

Miscellaneous Construction

Fla., Jacksonville—City Bd. of Recreation, J. E. Byrnes, 18 E. Duval St., soon receive bids for swimming pool; 45x105, rein. conc.; Wesley Bantz, Engr., 116½ Washington Ave., N. Lansing (Sta. Lansing), Mich.; former bids rejected.

La., New Orleans—Bureau of Yards and Docks, Navy Dept., Washington, D. C., receives bids Feb. 20 for repairs to timber wharves at Naval station.

La., New Orleans—Flood Control Bd., Maj. Gen. Edwin Jadwin, Washington, D. C., announced preparation of plans for projects for Mississippi River Flood Control for year beginning July 1 on basis of expending \$30,000,000, as provided in War Dept. appropriation bill; plans for acquiring necessary rights-of-way for floodways and spillways being pushed; condemnation proceedings being started for levees and spillways near New Orleans and floodway opposite Cairo, Ill.; expect rights-of-way to be obtained soon and actual work on spillways to start promptly; levee building and bank revetment will require expenditure by June 30 of \$24,000,000 appropriated for purpose; \$11,000,000 to be expended during year for revetment work in upper Mississippi River. 1-17

Md., Baltimore—See Airports, Airplane Plants, etc.

Md., Baltimore—Western Maryland Railway Co. and Port Development Comm., approved \$491,361 bid of Mullan Contracting Co., 3945 Greenmount Ave., for extending tracks of Western Maryland Railway Co. into pier being built for company at foot of McComas St.; recommendation to be sent to Bd. of Awards. 1-31

Md., Baltimore—See Airports, Airplane Plants, etc.

Missouri—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, has low bid from Woods Bros. Construction Co., 132 S. 13th St., Lincoln, Neb., for 8,000 lin. ft. standard pile clump dikes in Missouri River, at Moberly Bend, 2 mi. from Hodge. 1-3

Miss., Greenwood—City defeated \$50,000 bond issue for swimming pool. 1-17

N. C., Charlotte—City plans constructing incinerator.

N. C., Durham—See Electric Light and Power.

S. C., Charleston—Marine Oil Co., L. D. Long, Pres., acquired 5-year lease on Adger's wharf; shortly submit plans for large yacht terminal to Port Utilities Comm. or city authorities; accommodate 20 large yachts.

Tex., Houston—Don Hall Construction Co., Cotton Exchange Bldg., selected as contractor for \$6,000,000 rail and water terminal to be known as Merchants and Manufacturers Building, Main St., between Missouri-Kansas-Texas Railroad tracks and Southern Pacific, to be used for warehousing, light manufacturing, etc.; Giesecke & Harris, Archt., Second Natl. Bank Bldg. 1-24

Tex., Port Arthur—Gist Realty Co. let contract to W. F. Warfield, 1098 Orange St., Beaumont, for constructing 2½ mi. levee on Sabine-Neches ship channel.

Tex., San Antonio—City, C. M. Chambers, Mayor, receiving bids for open zoo at Brackenridge Park; cost approx. \$60,000.

Miscellaneous Enterprises

Ala., Birmingham—Amiesite Asphalt Co. of America, J. N. Emory, 235 S. 15th St., Philadelphia, Pa., advises Southern Amiesite Co., Geo. B. Carey, Lexington, Ky., establish asphalt plant. 1-31

Ala., Gadsden—Goodyear Tire and Rubber Co., Akron, Ohio, let contract to A. K. Adams & Co., 542 Plum St., N. W., Atlanta, Ga., for tire manufacturing plant; includes everything but power plant; ground to be broken Feb. 7; plant to be ready July 1. 1-31

Ala., Gadsden—Ben F. Martin acquired site, E. Broad St.; erect \$100,000 steam laundry; brick, 2-story.

Ala., Madison—Rev. Porter Florence plans establishing weekly newspaper.

Ala., Mobile—John Morrell Packing Co., 120 N. Water St., erect packing plant; 1-story, brick and conc., 88x100 ft.; Henschien & McLaren, Archts., 1617 Prairie Ave., Chicago, Ill.

Ark., Hope—Star Publishing Co., C. E. Palmer, Pres., 217 S. Main St., erect addition to plant; 20x20, brick. 1-31

Ark., Morrilton—Coca-Cola Co. erect bottling plant, Moore St.; 100 ft. frontage, brick, tile; employ about 20.

D. C., Washington—Smoot Sand & Gravel Corp., 3020 K St., N. W., erect \$60,000 concrete storage bin.

Fla., Fort Lauderdale—Crane Insecticide Mfg. Co., incorporated; B. F. Crane.

Fla., Fort Lauderdale—F. B. Crane, Hollywood and Menominee, Wis., and J. H. Crane, Hollywood, acquired Adams Manufacturing Co., producers of Spray Paradise; company to be known in future as Crane Insecticide Mfg. Co.; plant, 735 W. Lee Olas Blvd., to be enlarged.

Ga., Atlanta—Stoddard Dry Cleaning and Dyeing Co., W. L. Stoddard, Pres., 126 Peachtree St., let following sub-contracts for laundry: plumbing, Farrell Heating & Plumbing Co., 248 Ivy St.; electric contract, Whitmore Electric Co., Bona Allen Bldg.; Palmer Co., Thrower Bldg., has general contract; heating contract to be let later; G. Lloyd Preacher & Co., Inc., Archts., Wynne-Claughton Bldg. 12-27-28

Ga., Atlanta—Interstate Amlesite Co., Atlanta Tr. Bldg., erect \$15,000 asphalt mixing plant on Atlanta, Birmingham and Coast R. R., near North Ave.

Ga., Cartersville—Arlington Paint & Varnish Co., Alfred B. Stellwagon, Mgr., Canton, Ohio, installing following equipment to cost \$10,000 in paint plant: labeling machines, furnished by Burt Machine Co., 401 E. Oliver St., Baltimore, Md.; paint mills, mixers and filling machines, by Karl Kiefer Machine Co., 919 Martin St., and J. H. Day Co., Harrison Ave. and Bogan St., both Cincinnati, Ohio. See Want Section—Machinery and Supplies. 1-31

Ky., Cynthiana—Cynthiana Dairy Co. incorporated; H. Bromley, G. Gibbons.

Ky., Lexington—Dixie Ice Cream Co., Rose and Chesapeake Sts., increasing capital, \$200,000 to \$300,000.

Ky., Lexington—Victor R. Portman establish monthly newspaper, issued in interest of press of Kentucky and official organ of State Press Association.

Ky., Louisville—Atlas Plaster & Supply Co., capital \$100,000, incorporated; J. A. Stewart, 2525 Ramsdell St.

Ky., Louisville—Eastland Paint Co., capital \$20,000, incorporated; Allen P. Dodd, Louisville Tr. Bldg.

Ky., Pikeville—Evans-Amick Porter Advertising Co., changing name to Evans-Amick Hudson Advertising Co.

Ky., Somerset—NuGrape Bottling Co., capital \$20,000, incorporated; T. E. Goodby, C. M. Hugher.

Louisiana—Hercules Powder Co., Wilmington, Del., reported, acquired 98,000 acres of cutover pine land in Vernon, Beauregard, Allen and Sabine Parishes; reported, may establish resin and turpentine plant.

La., Jonesboro—Jonesboro Hardware and Furniture Co., Inc., capital \$25,000, chartered; J. E. Cox.

La., Monroe—Brown Paper Mill Co., G. S. Holmes, Mgr., erect \$110,000 building adjoining present plant; install lime burning facilities to reclaim waste product; conc. and steel.

La., New Orleans—Gulf Steamship Co., Inc., capital \$150,000, chartered; J. A. Wilson, Harry L. Daunoy, 1541 Canal Bk. Bldg.

La., New Orleans—Dwyer Printing Co., Inc., chartered; M. M. Dwyer, 5335 St. Charles Ave.

La., New Orleans—Walker Storage & Van Co., Inc., capital \$100,000, chartered; Geo. E. Butler, 639 Nashville Ave.

La., Shreveport—Tobey Press, Inc., chartered; E. T. Tobey, 533 E. College St.

La., Shreveport—Superior Oil and Gas Separator Co., Inc., capital \$252,000, chartered; Ervin Auxter, 410 Egan St.

Md., Baltimore—American Radiator Co., 40 W. 40th St., New York, reported, approved acquisition of Standard Sanitary Mfg. Co., Bessemer Bldg., Pittsburgh, through exchange of 1 share of American Radiator common stock for approx. 31-3 shares of Standard Sanitary common; merger reported, will result in company capitalized at approx. \$500,000,000. 12-27-28

Md., Baltimore—Procter & Gamble Co., Cincinnati, Ohio, issuing \$12,500,000 5% cumulative preferred stock through First Investment & Securities Corp., W. E. Hutton & Co., both Cincinnati; Bankers Co. of New York; National City Co., New York; Guaranty Co. of New York and Hayden, Miller

& Co., Cleveland; company and subsidiaries produce soaps, glycerine and foodstuffs, manufactured from vegetable fats, such as cottonseed and coconut oils; incorporated in New Jersey and Ohio; main plants in South at Macon, Ga.; Dallas, Tex., and St. Louis, Mo.; proceeds to reimburse treasury for redemption of 6% cumulative preferred stock at 110 and accrued dividends, to provide funds for new plant for which land has been acquired and work begun at Baltimore, and for other corporate purposes. 1-31

Md., Baltimore—Western Electric Co., Edgar S. Bloom, Pres., 195 Broadway, New York, reported, completed plans for \$24,000,000 telephone cable and wire manufacturing plant; razing old structures about completed; H. K. Ferguson Co., Hanna Bldg., Cleveland, contractors for design and construction; W. H. Meese, Mgr. of plant, to occupy offices, Court Square Bldg., Calvert and Lexington Sts. 1-24

Md., Baltimore—Procter & Gamble Co., S. M. Manley, Engineering Supt., Ivorydale, Cincinnati, Ohio, advises expect to receive bids last of March on \$4,000,000 soap manufacturing plant. 1-31

Md., Hagerstown—Troy Laundry, A. F. Hyson, E. Washington St., erect \$50,000 laundry plant, E. Washington St.; 3-story, brick; receive bids about June 1; plans in progress by A. J. Klinkhart, Archt., Kohler Bldg.

Md., Laurel—City Council will purchase fire engine; James P. Curley, Mayor.

Miss., Jackson—Standard Reserve Life Insurance Co., capital \$500,000, incorporated; Gen. J. B. Stirling, 600 N. State St.

Miss., Kosciusko—Nu-Grape Bottling Co. completed plans for bottling plant; brick; soon begin construction; to be under management of A. M. Hanna.

Missouri—President Coolidge, reported, approved \$10,000,000 appropriation for Inland Waterways Corp., Munitions Bldg., Washington, D. C., to be used in providing additional equipment, including barges and towboats, for use on Mississippi, Warrior and Missouri Rivers; appropriation to be made available through 4-year period, first allotment of \$2,500,000 to be expended at once, in building additional barges.

Mo., Clayton—St. Louis Printing and Publishing Co., R. E. Essen, 12 N. Central Ave., erect \$75,000 newspaper publishing plant; 2-story, brick.

Mo., Fulton—P. E. Kampine, Marinett, Wis., establish cheese plant; to be ready for business about April 1.

Mo., Kansas City—Paper—Dalton Evans Co., incorporated; N. N. Dalton, 1009 W. 57th St. Terrace.

Mo., Kansas City—Colonial Cake Co., 4050 Pennsylvania Ave., incorporated; W. Miller.

Mo., Nevada—House Clothing Co., capital \$25,000, incorporated; E. C. Roberts, F. L. House.

Mo., Springfield—City Ice and Fuel Co. incorporated; Arthur W. Allen, Woodruff Bldg.

Mo., St. Louis—Metropolitan Electric Co. incorporated; August F. Althoff, 3328 Louisiana St.; O. L. Sharr.

Mo., St. Louis—Superior Stoker Corp., capital \$50,000, incorporated; J. B. Marquis, 6341 Southward St.

Mo., St. Louis—Stifel, Nicolaus & Co., Inc., investment brokers, Boatmen's Bank Bldg., reported, negotiating for Con P. Curran Printing Co., with plant at Eighth and Walnut St.

Mo., St. Louis—Day-Brite Reflector Co., 703 S. Broadway, manufacturers of enamel reflectors, principally show cases, let contract to Porcelain Enamel & Mfg. Co., Eastern Ave. and 23d St., Baltimore, Md., for furnace plant, including milling equipment, spread-fast spray booth and pickling equipment; install electric furnace furnished by George J. Hagan Co., Chamber of Commerce Bldg., Pittsburgh, Pa.

Mo., St. Louis—John W. Rowan Plastering Co., 411 N. Seventh St., increasing capital stock, \$50,000 to \$100,000.

Mo., St. Louis—Construction, Contracting and Erecting—Herman Mayer Co., 3617 S. Grand St., incorporated; Herman Mayer.

Mo., St. Louis—Italian News Publishing Co., capital \$15,000, incorporated; Cesare Avigni, 2907 Locust St.; acquire ownership of different Italian newspapers and publish an Italian newspaper in city.

Mo., St. Louis—Peerless Dress Co. incorporated; Maurice H. Fixel, 755 Herman St.

Mo., St. Louis—Eagle Laundry Machinery Co., 11 S. Second St., capital \$50,000, incorporated; David Cohen.

N. C., Durham—See Electric Light and Power.

N. C., Durham—Brown Ice and Coal Co., Inc., capital \$20,000, chartered; H. H. Brown, Hillsboro; J. M. Smith, 1213 N. Mangum St., Durham.

Okla., Altus—Altus Publishing Co., Harrington Wimberly, Business Mgr., erect publishing building, W. Commerce St.; 50x140 ft.

Okla., Oklahoma City—Turnbull-Russell Co., 225 W. Second St., completed plans for print shop; Sorey & Vahlberg, Archt., Braniff Bldg. 12-6-28

Okla., Terral—Flexible Pneumatic Suction Co., capital \$25,000, incorporated; Walter M. Ellis, H. M. Davis.

Okla., Tulsa—Protective Metals, Inc., capital \$100,000, chartered; W. E. McCandlish, Guy S. Mannatt.

Okla., Tulsa—Petroleum Chemical Co., capital \$25,000, incorporated; J. D. Hull, 1500 S. Frisco St.

S. C., Charleston—See Miscellaneous Construction.

S. C., Greenville—Piedmont Shirt Co., Saltsman Shepherd, Pres., expand shirt manufacturing plant; now operating 40 machines; will add 15 more; present output about 4000 shirts weekly; propose to increase capacity to 6000 weekly.

Tenn., Chattanooga—Plumbing and Heating—Jones & Van Der Cammer, Inc., 2606 E. Main St., capital \$15,000, chartered; W. R. Jones.

Tenn., Chattanooga—United Dairies, Inc., John W. Morgan, Pres., formed by merger of Morgan & Kile, 2341 E. 23d St., Wise Creamery Co., 912 Houston St., and Farm Fields Dairy.

Tenn., Nashville—Nashville Pure Milk Co., H. Burton Wilkerson, Pres., let contract to Foster & Creighton Co., Fourth and First Bldg., for remodeling milk plant, Church St. and 14th Ave.; addition to adjoin present building, 65 ft. long, 2-story; install Michael Yundt bottle washers, each capable of cleaning 60 bottles per minute, milk can washer, 200-gal. pasteurizers, 500-gal. pasteurizer, 2 1000-gal. glass-lined pasteurizing tank, special enclosed milk cooler and large fore-warmer; enlarge laboratories; calls for expenditure of \$200,000; Asmus & Clark, Archt., Nashville Tr. Bldg.

Tex., Dallas—Baker Battery Service, capital \$20,000, incorporated; J. S. Baker, 4332 Livingston St.

Tex., Ennis—Boedeker Ice Cream Co., 1207 S. Ervay St., Dallas, acquired Kendall Ice Cream Co.; will remodel and modernize.

Tex., Floresville—Chamber of Commerce interested in establishing sweet potato curing plant and bean and pea kiln dry plant.

Tex., Galveston—Shearn Moody erect laundry plant; Andrew Fraser, Archt., American National Ins. Bldg. 1-3

Tex., Hereford—Traer Cooperative Co., care N. O. Bendickson, Mgr., Traer, Ia., erect \$60,000 creamery; brick, conc.

Tex., Houston—Triple XXX Root Beer Co., W. T. Peckinpaugh, Pres., 807 McKinney St., receiving bids for \$20,000 bottling and manufacturing plant, 2410 Capitol Ave.; 1-story, brick and hollow tile.

Tex., La Grange—Chamber of Commerce, H. W. Speckels, Sec., interested in establishing laundry.

Tex., Lockhart—Lockhart Creamery, capital \$25,000, incorporated; J. T. Storey, W. B. Swearingen.

Tex., Naacodoches—Pure Milk and Ice Co. let contract to Hatch and Kingham for plant; install machinery to cost approx. \$35,000. 1-3

Tex., San Antonio—Lone Star Construction Co., Milam Bldg., increasing capital, \$40,000 to \$100,000.

Tex., San Antonio—Universal Book Bindery, capital \$25,000, incorporated; C. W. Carroll, Leo Pickard, 207 Market St.

Tex., Weatherford—J. W. Richards and J. E. Flamm establish chicken hatchery with 12,000-egg capacity.

Va., Danville—Arnstein's French Dry Cleaners, Inc., chartered; Henry Arnstein, 538 Green St.

Va., Fredericksburg—See Ice and Cold Storage Plants.

Va., Richmond—Keppel Tire Store, Inc., capital \$75,000, chartered; L. E. Keppel, 1210 Bellevue Ave.

Va., The Plains—Marshall Field, 120 W. Adams St., Chicago, Ill., acquired approx. 1,000 acres here and will establish large horse raising establishment during next 2 or 3 years.

Va., West Point—Albemarle-Chesapeake Co., Inc., H. Watkins Ellerson, V.-Pres., contemplating installing additional equipment in sulphate mill to cost \$300,000 in immediate future. 12-13-28

Va., Winchester—Manbeck Bread Co., capital \$200,000, incorporated; Harry Lovett.

Motor Bus Lines and Terminals

Ark., Fort Smith—J. C. Sumpter applied to Railroad Comm. for permission to operate bus line between Fort Smith and Siloam Springs by way of Van Buren, Lotgown, Figure Five, Cedarville, Natural Dam, Davison, Evansville, Dutch Mills, Summers and Cincinnati.

Ark., Harrison—See Motor Cars, Garages, Filling Stations.

La., Shreveport—Hollywood Transportation Co., Inc., chartered; Patton Hawkins, 230 Atkins Ave.; J. C. Webb, 540 Gladstone Blvd.; operate bus line from new T. and P. terminal at Hollywood to downtown district.

Md., Baltimore—Nevin Bus Lines, Inc., Edward B. Nevin, Pres., 111 W. 31st St., New York, reported, acquired following companies: Paradox Line, operating between Kansas City, Denver, Salt Lake City, Casper and Cheyenne, Wyo.; Continental Stages, Inc., Chicago, operating through Pittsburgh, Akron, Fort Wayne, Chicago, Salt Lake City and Kansas City, and Silver Arrow Line, operating through Detroit, Toledo, Massillon and Pittsburgh; purchasing company, prior to merger, operated through New York, Pittsburgh, Washington, Baltimore, Philadelphia and Boston.

Okla., Oklahoma City—Corporation Comm. authorized H. N. Walker, 807 W. Sixth St., and W. O. Green, 24 W. Fourth St., to operate motor express between Oklahoma City and Pawhuska, via Okemah, Cushing, Drumright, Oilton, Cleveland and Hominy.

Tex., Bonham—John Pierce applied to Railroad Comm. for permission to operate bus line between Bonham and Farmersville.

Tex., Denton—J. M. Griffin applied to Railroad Comm. for permission to sell permit covering operations between Denton and Greenville by way of McKinney and Farmersville.

Tex., El Paso—Railroad Comm. authorized Southern Pacific Motor Transportation Co. to operate 18 mi. of its interstate line from New Mexico-Texas boundary to El Paso, part of line from Los Angeles to El Paso. 1-17

Tex., Houston—Missouri Pacific Transportation Co., subsidiary of Missouri Pacific Railroad Co., L. W. Baldwin, Pres., St. Louis, Mo., applied to Railroad Comm. for permission to acquire White Star Bus Line, operating between Houston and West Columbia, by way of Angleton and between Houston and Freeport, by way of Angleton.

Tex., Pampa—J. L. Thompson applied to Railroad Comm. for permission to operate bus line between McLean, Lefors and Pampa; J. W. Worley applied for permission to operate over same route.

Tex., Pampa—A. T. Sherwood applied to Railroad Comm. for permission to operate bus line between Pampa and Childress by way of Mobeetie and Wheeler.

Tex., Sulphur Springs—M. B. Merrell, L. H. Cannon and Dudley Mill applied to Railroad Comm. for permission to sell to Dixie Motor Coach Co. permit for operating lines between Sulphur Springs and Mount Pleasant.

Va., Norfolk—S. W. Harris, 820 Graydon Ave.; E. C. Wooten, 316 Monticello Ave., and O. G. Strother, Flat Iron Bldg., interested in erecting \$750,000 bus terminal and parking station on block bounded by Boush, Plume, Randolph and Main Sts.; will apply for charter and work to begin shortly.

Va., Richmond—Virginia Electric and Power Co. purchased 5 twin-coach passenger buses manufactured by Twin Coach Corp., Ket., Ohio; company now operates 80 buses.

Tex., Denton—Railroad Comm. authorized sale of bus lines owned and operated by J. M. Griffin, between here and Greenville, to Southwestern Transportation Co.

Motor Cars, Garages, Filling Stations

Ark., Harrison—Lewis Service Station No. 2, W. H. Lewis, remodel filling station; build bus terminal, auto storage and garage; Spanish style.

Ark., Searcy—Millar-Jeffries Chevrolet Co. let contract to McGregor & Pickett, A. O. U. W. Bldg., Little Rock, for \$15,000 auto sales building; 1-story, brick, conc., 75x100 ft.

Fla., Melbourne—Gulf Refining Co., Pittsburgh, Pa., erect \$25,000 filling station, Palmetto and Dixie St.; brick; ground broken.

Fla., Miami—Firestone Tire & Rubber Co., Akron, Ohio, receiving bids on revised plans for service station, W. Flagler St. and 12th Ave.; Alex. Lewis, Archt., Miami Beach. 12-27-28

Fla., Miami—Orange State Oil Co. erect filling station, S. E. corner of S. E. Eighth

St. and S. Miami Ave.; H. M. Glover, Engr.; Neider & Seiler, Archts., Calumet Bldg.

Fla., Ocala—Ocala Tire and Service Co., Inc., chartered; W. C. Billingsley, C. A. Savage.

Fla., St. Petersburg—Firestone Tire and Rubber Co., Akron, Ohio, completing plans for service station, Ninth Ave. and Ninth St.; F. J. Kennard & Son, Archts., Krause Bldg., Tampa. 12-13-28

Ga., Atlanta—Grant-Harris Motor Co., Hugh Richardson, has low bid from Flagler Co., Red Rock Bldg., at \$80,900, for automobile building, W. Peachtree St. 1-17

Ky., Bowling Green—Hill-Linville Tire Co., increasing capital stock to \$25,000.

Ky., Russellville—Herndon Motor Co., capital \$15,000, incorporated; G. C. Herndon, H. E. Kamp.

La., Alexandria—Younger Motor Truck Co., Inc., chartered; Geo. Younger.

La., Monroe—Tidwell & Sons, Inc., chartered; A. E. Tidwell.

La., New Orleans—Sherroouse Motors, Inc., capital \$15,000, incorporated; Stanhope H. King, Canal Bank Bldg.

La., Opelousas—Daly Motor Co., Frank Daly, enlarge present automobile building; increase floor space 1200 sq. ft.

La., Rayville—M. & S. Service, Inc., capital \$60,000, chartered; Jno. C. Morris, H. J. Stodghill.

Md., Baltimore—Hutzler Bros. Co., 212 N. Howard St., let contract to Frainie Bros. & Haigley, 19 W. Franklin St., for 6-story automobile service and garage building, Saratoga St., near Howard; to be used partly for delivery and service station, all delivery wagons loading under cover; remainder of building accommodating 350 automobiles, to be rented to Motoramp Garages of America, Inc., 21 E. 40th St., New York; 150,000 sq. ft. floor space; H. F. Doeleman, 516 N. Charles St., Struct. Engr.; Jos. Evans Sperry, Archt., Calvert Bldg. 1-3

Miss., Jackson—Walhall Hotel Co., E. O. Spencer, Sec.-Treas., Miss. Fire Bldg., soon receive bids for \$75,000 garage, Pearl St.; 3-story, rein. conc., brick; N. W. Overstreet, Archt., Miss. Fire Ins. Bldg. 1-17

Miss., Moss Point—Gulf Refining Co., Pittsburgh, Pa., J. H. Colville, Local Agt., erect filling station, Main St. and Bellevue Ave.; conc. drives, rest rooms, air pumps, etc., brick or veneer.

Miss., Yazoo—Woodwine Motor Co. erect \$50,000 auto show room and service building, Washington and Commercial St.; 235x103 ft.

Mo., Cape Girardeau—Rueseler Motor Co. remodel present building and erect new building on site adjacent to present building in rear of H.-H. Bldg.

Mo., Kansas City—Berryman Reo Co., Inc., capital \$100,000, chartered; J. R. Berryman, S. B. Sebree, 1211 Commerce Bldg.

Mo., Kansas City—Sheildley Estate, Guignon Real Estate Co., E. S. Guignon, 101 Sterling Bldg., erect garage and stores, Ninth and Main St.; 4-story; F. L. Brown, Engr., Orear Leslie Bldg.; McKecknie & Trask, Archt., Bd. of Trade Bldg.

Mo., Windsor—Ferguson Chevrolet Co., incorporated; E. W. Thompson, 1413 S. Carr St.

N. C., Charlotte—Buick Motor Co., division of General Motors Corp., Detroit, Mich., will acquire and operate automobile distribution business of C. C. Coddington, Inc.; effective about June, 1929; negotiate for purchase or lease of present building.

N. C., Hendersonville—G. W. Buchholz, White Oak Rd., Asheville, let contract to Russell B. Smith Engineering Co., 452 Fifth Ave., New York City, for 80-car garage; cost approx. \$100,000; Beacham & LeGrand, Archts., Flat Iron Bldg., Asheville.

N. C., Winston-Salem—Southern Public Utilities Co., S. L. Duckett, Engr., Charlotte, now preparing plans for garage, E. Second St., between Chestnut and Church St.

N. C., Winston-Salem—Pilot Oil Co., R. E. Kraft, Pres., acquired local wholesale gasoline and oil business of American Oil Co., R. E. Lasater, Pres., including number filling stations in city and vicinity; American Oil Co. retail fuel oil and oil burner business; American company taking over plant formerly used by Pilot company and latter taking over plant and warehouse of American company.

Okla., Bartlesville—Phillips Petroleum Co. let contract to H. H. Shell & Son, Littlefield, for garage; 13x20 ft., brick, conc. floors, comp. roof; install gasoline pumps, air lifts, air compressors, etc.

Okla., Oklahoma City—John J. Harden, Inc., A. M. Spencer, Sales Mgr., Petroleum Bldg., erect \$15,000 automobile service building, Exchange and Klein Ave.; Spanish design; 25x125 ft.

Okla., Shawnee—Jimmie Truss Tires, Inc., capital \$20,000, chartered; William F. McLaury, Howard B. Hopps.

Tenn., Copperhill—Ocoee Motor Co. incorporated; Arthur B. McCay, T. C. Barclay.

Tenn., Elizabethton—Power City Motor Co. incorporated; J. C. Paty, G. R. Patterson.

Tex., Beeville—Houston Oil Co., Petroleum Bldg., acquired site St. Mary's and Corpus Christi St.; erect combination service station and office building; 25x33 ft., 2-story.

Tex., Coleman—A. G. Beach and Jack Powell erect garage and service station, Elm St. and Commercial Ave.

Tex., Corpus Christi—Central Power and Light Co., Fros Bldg., erect garage and store house; 1-story, brick and conc. steel trusses; John M. Marriott, Archt., Frost Bldg., both San Antonio; Roy W. Leible, Associate.

Tex., Houston—Modern Tire and Repair Co., 1018 Fannin St., let contract to James M. L. West, Post-Dispatch Bldg., for \$15,000 service station; J. Rodney Tarbor, Archt., 3 Bellecourt Apts. 1-31

Tex., Houston—Modern Tire Co. let contract to James M. L. West, Post-Dispatch Bldg., for \$18,600 building, 1123 Leeland Ave.; 89x52 ft., hollow tile.

Tex., Houston—A. C. Burton & Co., A. C. Burton, Pres., 1402 Main St., Chrysler distributors, completing plans for \$250,000 automobile building, Milan St. and Bell Ave.; Joseph Finger, Archt., Keystone Bldg. 12-13

Tex., Italy—Couch Wolaver Chevrolet Co., incorporated; R. E. Wolaver, G. O. Couch.

Railways

Md., Baltimore—Pittsburgh and West Virginia Ry. Co., F. E. Tauplin, Ch. of Bd. and Pres., Cleveland, Ohio, applied to Interstate Commerce Comm. for permission to control Western Maryland Ry. Co., M. C. Byers, Ch. of Bd. and Pres., Baltimore, now controlled by Baltimore and Ohio R. R. System, giving company through trunk line from Cleveland to Baltimore.

Texas—More & Moore Sand and Gravel Co., Inc., T. C. Moore, Chillicothe, advises building 10 mi. railway to gravel pit, Stone Wall County; Montgomery and Pinson, Dallas, company's Engrs. in charge; at present time grading and clearing right-of-way and contemplate starting to lay steel within few days. (See Hamlin, Tex., 1-24)

Texas—Atchison, Topeka & Santa Fe Railroad, W. B. Storey, Pres., Chicago, Ill., reported ordered following equipment: 25 ore cars from Koppel Industrial Car & Equipment Co., Koppel, Pa.; 75 hopper cars from Ralston Steel Car Co., East Columbus, Ohio; 75 hopper cars from American Car and Foundry Co., 30 Church St., New York; and 10 baggage, 10 chair, 10 chair-smoker, 10 passenger and 14 mail and baggage cars from Pullman Car & Mfg. Corp., Chicago. 12-20-28

Texas—Illinois Central System, A. E. Clift, Sr., V.-Pres., Chicago, Ill., advises following new equipment included in 1929 budget: Six 70-ft. steel mail and baggage cars, 15-ft. mail apartment and 55-ft. baggage and express apartment; ten 70-ft. steel baggage and express cars, five to be equipped with stalls and wide end doors for handling race horses; ten 70-ft. steel coaches; eight 70-ft. steel chair cars; 700 40-ft. 6 in. x 10 ft. x 9 ft. doors 10 ft. wide, staggered; 40-ton composite automobile-furniture cars; 300 50 ft. 2 in. x 10 ft. x 8 ft. 6 in. doors, 10 ft. wide, staggered; 40-ton composite automobile-furniture cars; 750 70-ton self clearing hopper cars; 750 50-ton self clearing hopper cars; 200 50-ton, 45 ft long steel underframe flat cars; 25 steel underframe standard aboose cars; 15 0-8-0 3500-class switch engines. 1-31

Tex., Edcouch—Interstate Commerce Comm. authorized St. Louis, Brownsville and Mexico Railway, C. S. Kirkpatrick, Ch. Engr., Houston, to build 30 mi. of railroad in Hidalgo County from point near Edcouch to Weslaco, connecting with mission branch. 11-29-28

Va., Richmond—Chesapeake & Ohio Ry. Co., W. J. Harahan, Pres., begin work immediately on \$18,403,000 improvements: Huntington, W. Va., and vicinity—(1) rebuild locomotive shops, 25-pit erecting shop, oil storage plant, tin shop, \$3,493,000; (2) Third track, Barboursville to Pike Crossing, signals, etc., \$4,210,000; (3) Barboursville rail sawing plant, \$50,000; Russell, Ky. and vicinity—new freight car repair shops with power house \$3,162,000; (2) underpass and tracks, \$400,000; (2) car retarders, rearranging switches, revising grades, \$365,000; (4) on Eastbound yard, 8 140-car tracks, 70-car switching lead, 30-car switching lead, undergrade crossing, relocating road and bridge, \$997,000; Richmond, Va., and vicinity—(1) Fulton roundhouse addition, coaling station, cinder pit, supply houses, water station facilities, \$730,000; (2) 17th St. power

shops, power plant, oil house, \$89,000; Clifton Forge, Va. and vicinity—(1) engine terminal work, 21-stall roundhouse, 115-ft. turntable, \$90,000; (2) track extension in West-bound yard, \$302,000; Hinton and vicinity—(1) engine terminal improvements, coal dock, extend roundhouse, \$330,000; (2) track improvements, \$638,000; repair tracks, shop buildings, \$207,300; Big Sandy Subdivision—(1) second track, Emma to Beaver Junction, 2.6 m. lcs, \$89,000; (2) extend passing siding at Louisiana, \$90,000; Northern Subdivision—second track, Sciotoville to Wheeler, Ohio, 4.3 m., \$961,000; Virginia Air Line—Strathmore, track extensions, \$103,200; Stevens, Ky.—improve roundhouse, coaling station, etc., \$594,000; Chevoit, Ohio—engine terminal improvements, 400-ton coaling station, \$84,000; Greenbrier Sub-Division, strengthening bridges, \$253,000; Limeville, Ky.—interlocking and signals, \$82,100; Miami, Ohio—grade crossing separations, \$104,500; Covington, Va.—freight house, tracks, \$97,500; Paintsville, Ky.—passenger depot, \$71,400; Peru, Ind.—repair tracks, move depot, etc., \$112,500; Eunice, W. Va.—30 dwellings for miners, \$70,374.

Va., Winchester—Herbert S. Larrick and R. Gray Williams acquired Winchester and Western R. R., D. H. Sencindiver, Receiver and Gen. Mgr., all Winchester; includes equipment and all property in Frederick County, Va., and Hampshire and Hardy Counties, W. Va.

Railway Shops and Terminals

Va., Richmond—See Railways.

Roads, Streets and Paving

In connection with **LAND DEVELOPMENT** large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Alabama—State Highway Comm., Montgomery, plans graveling Columbus road, Tuscaloosa County; Through Sipsey Swamp; road leading into Bibb County, via Duncanville to Centerville; H. A. Van Orman, Res. State Engr., Tuscaloosa.

Ala., Mobile—Mobile County Bd. of Revenue considering paving 5 roads and bridge approaches, totaling 30 mi.; Telegraph road, Conception St. road, Government St., Theodore-Delchamps and Pinecrest cemetery roads; Mobile Bay Bridge approaches; will sell bonds.

Ala., Selma—City, T. J. Rowell, Mayor, considering graveling 4 blocks Jeff Davis Ave. and opening Gregory St., Jeff Davis to Water Ave.

Ark., Camden—City receives bids in Feb. for dirt work on river road, from foot of pavement on East Washington St. to Martin free bridge; J. W. Hayes, City Engr.

Ark., Eureka Springs—City Comm., C. A. Fuller, Mayor, receives bids about Feb. 15 for 5 mi. grading, curbing and 28 and 30 ft. conc. paving, cost \$180,000; F. T. Pritchett, Engr., Reigler Bldg., Little Rock. 1-31

Fla., Miami—City Commrs., H. E. Ross, Clk., received low bid from Morgan-Hill Paving Co., 71 N. E. Twenty-first St., for 4,200 sq. yd. paving, N. E. Sixth St., from One Hundred and Seventh St. to Griffing Blvd., Biscayne Park. 12-27

Fla., Miami—City Comm. probably receive bids Feb. 19 for 235 sq. yd. two course 4-in. sidewalks; 5200 sq. yd. 5-in. compacted local pit rock base paving, two applications surface treatment oil and wearing surface oil; 10 cased drainage wells with baffle boxes, inlets and connection pipes; C. S. Nichols, City Engr.

Ga., Glennville—City plans street paving under Baby Bond plan.

Ga., Rossville—Capt. W. J. Redner, Constructing Quartermaster, Ft. Oglethorpe, receives bids Feb. 25 to pave Hooker road.

Ga., Waycross—State Highway Dept., Atlanta, will let contracts in Feb. for 2 roads in Ware County: 10 mi. asphalt, Central Dixie Highway, from Florida line near Folkston toward Waycross; asphalt top-surface Oglethorpe Highway from Waycross to Manor; J. D. Mitchell, Clk., County Commrs.

Kentucky—State Highway Dept., Frankfort, received low bids for 5 roads and 2 bridges: Bell County—5.352 mi. grading, draining, Pineville-Manchester road, Mason Construction Co., West Point, Ky., \$102,753; Jessamine County—5.253 mi. grading, draining, Nicholasville-Lancaster road, Jenkins Construction Co., Elizabethtown, \$53,119;

Livingston County—3.465 mi. grading, draining, Smithland-Eddyville road, Carter, Carter & Braden, Clay, \$54,149; 3.160 mi. grading, draining, Eddyville-Paducah road, Frazer & Cocke, Wickliffe, Ky., \$44,093; Lyon County—5.258 mi. grading, draining, Eddyville-Smithland road, G. E. Stoner, Marion, Ky., \$76,407; Bridges: Henderson County—bridge over L. H. & St. L. R. R., Henderson-Owensboro road, steel superstructure, Vincennes Bridge Co., Vincennes, Ind., \$11,444; substructure, Carter, Carter & Braden, \$20,927; Ohio County—on Beaver Dam-Hartford road, Newell & Ellis, Owensboro, \$32,677. 1-3

Ky., Dawson Springs—City, J. L. Hosick, Clk., receives bids Feb. 15 for grading, draining, conc. curbs and gutters and rock asphalt on macad. base, or cement conc. paving; 15,800 sq. yd. roadway surface, 7,000 tons rock rolled, 6,400 lin. ft. 18-in. wide, conc. curb and gutter, 310 sq. yd. conc. valley gutters; C. N. Harrub, Engr., 705 Fourth and First National Bank Bldg., Nashville, Tenn.

Louisiana—Louisiana Highway Comm. Baton Rouge considering 22 mi. gravel surfacing, 38 mi. embankments, 45 mi. grading, 272 mi. grading and surfacing, 13 mi. conc. and 2 bridges; making preliminary surveys of routes from Alexandria to Monroe; Rayville to Natchez; Lafayette to Bunkie; Baton Rouge to Hammond; Amite to Frenier, etc.; L. R. Ames, State Highway Engr.

La., Alexandria—Louisiana Highway Comm., Baton Rouge, received low bid from L. E. Myers Co., Allen Bldg., Dallas, Tex., \$70,609, for 6,753 mi. gravel, Camp Beauregard-Artillery Range Highway, Rapides Parish; L. R. Ames, State Highway Engr. 1-17

La., Homer—City, Lamonte Seals, Mayor, receives bids Feb. 12 for 1027 sq. yd. 6-in. rein. conc. pavement, South Main St.; Chas. D. Evans, Const. Engr., Shreveport.

La., Monroe—City, P. A. Poag, Sec.-Treas., receives bids Feb. 20 for 5 mi. paving in city.

La., Port Allen—City considering sidewalks; L. J. Voorhies, Const. Engr., Baton Rouge. See Financial News.

La., Shreveport—City, S. G. Wolfe, Sec.-Treas., receives bids Feb. 12 to pave with asphaltic conc., Reynolds and Hotchkiss St., Hope St. to Allen Ave.

Md., Brunswick—Town considering extending streets, cost about \$20,000.

Md., Upper Marlboro—Prince Georges County considering extending Central Ave. to Crain Highway.

Miss., Collins—Covington and Jones Counties plan graveling highway from Mount Olive, Covington County, to connect with highway east of Reddock's Ferry over Leaf River, Jones County; preliminary surveys completed.

Miss., McComb—City, B. E. Butler, Clk., receives bids Feb. 19 for grading and 25,000 sq. yd. brick, conc., vibrolithic conc., sheet asphalt and Warrenite bitulithic paving, with drainage structures, curbs, gutters and preparation of sub-grade, on New York Ave., Howe St., etc.; 10,000 cu. yd. excavation, 5,000 lin. ft. plain curb or curb and gutter; permanent sewer and water connections and storm drain pipe or culverts; Henry A. Mentz & Co., Engrs., McComb, and Hammond, La.; Xavier A. Kramer, Mayor. 1-17

Mo., Columbia—State Highway Comm., Jefferson City, probably hard surface Highway No. 22, Boone County; T. H. Cutler, Ch. Engr.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, considering paving 4 streets in business section.

Mo., Kansas City—Matthew S. Murray, Dir. of Public Works, approved plans to grade Seventy-fifth St., Troost Ave. to Paseo; pave with plain 6-in. conc. Mersington, Forty-third to Forty-fifth; grade Forty-seventh and Highland St.

Mo., Richmond—Ray County Comm. authorized 2 roads: 4½ mi., south from Elmira to connection with Blue Jay Route to Lawson; 2½ mi., from Vibbard to Highway No. 10.

Mo., St. Charles—City, Henry Broeker, Mayor, considering 101½ blocks bit. surface treatment on waterbound macad. base during 1929; H. D. Smelser, City Engr., supervise construction.

Mo., St. Joseph—City, Bd. of Public Works receives bids soon for 14,000 sq. yd. 8-in. conc. repaving, and 5,500 sq. yd. asphaltic conc. resurfacing, Frederick Ave., cost \$55,000; R. Dunlap, Engr.

Mo., St. Louis—City, Bd. of Public Service, preliminary plans for alternate types of paving, Kinsbury Place, Copelin Ave., Allen, Bates, Sidney, Vandeventer St.; W. W. Horner, City Engr.

Mo., St. Louis—City, Bd. of Public Service, received low bid from Morgan & Watkins, and Kunze Construction Co., 717 S. Vandeventer St., St. Louis, for grading only; esti-

mated cost \$17,453; W. W. Horner, Ch. Engr., Sewers and Paving.

Mo., St. Louis—City plans 48,020 sq. yd. granite block paving, 47,245 sq. yd. conc. base, reset 10,440 lin. ft. curb, lay 7,400 lin. ft. granite curb, 85,750 sq. ft. sidewalks, 15,130 cu. yd. grading; estimated cost \$419,654; contract probably let in summer; W. W. Horner, Ch. Engr., Sewers and Paving. 1-31

North Carolina—State Highway Comm., Raleigh, receives bids Feb. 19 for 5 roads, bridges, approaches: Robeson County—10.5 mi. grading, structures, Route 70, Fairmont to South Carolina line; 11 mi. grading, structures, Route 201, Lumberton to Bladen County line; overflow bridge across Lumber River, Route 20; Anson County—9.8 mi. top soil, Route 80, Wadesboro to Ansonville; Mecklenburg County—structures on Route 261; Caldwell and Watauga Counties—10.39 mi. gravel, old Yonahlossee Turnpike, from Avery-Caldwell County line to Blowing Rock; Wilkes County—10 mi. dirt, Route 60, Wilkesboro, west; Davie and Rowan Counties—grading approaches to bridge over Yadkin River, Route 80.

N. C., Charlotte—City Commrs., Marion Redd, Mayor, plan widening East Fifth St. between Tryon and College St.

N. C., Wilmington—City Commrs., J. L. Beeton, Civil Engr., plan receiving bids soon to improve and extend Third St. to Cape Fear River span, cost \$60,000 to \$70,000; plans prepared; also to widen Grace St., Front to Second.

N. C., Wilmington—City Commrs. receive bids Feb. 13 for grading, combination curb and gutter, cement sidewalks, 16,000 sq. yd. sheet asphalt, Warrenite bitulithic, cement conc. or sand asphalt paving, 4,600 lin. ft. storm drains, relaying brick pavement, re-setting granite curbs, etc.

Okla., Boise City—City plans \$60,000 paving. See Financial News. 1-10

Okla., Chickasha—City plans 11,000 sq. yd. grading, conc. paving on various streets in Dist. No. 48, cost \$48,000; R. C. Bradley, Engr.

Okla., Duncan—City, J. L. Davis, Clk., plans grading, 7,800 sq. yd. conc. paving, North Tenth, Elder, Spruce; cost \$27,000.

Okla., Lawton—City plans 15 blocks 30-ft. paving, cost \$37,000; O. E. Noble, Engr.

Okla., Maud—City plans grading, and 7,200 sq. yd. 7-in. conc. paving, South Oxford St., cost \$28,360; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City.

Okla., Mangum—City plans grading and 9,100 sq. yd. conc. paving on 3 streets; cost \$30,610; E. W. Gantt, Engr., 1116 W. Main St., Oklahoma City.

Okla., Oklahoma City—Oklahoma County, Ed. Butterfield, Commr., probably let contract Feb. 12 to pave with rein. conc., 1½ mi. East G St. road, Capitol Hill to Sunny Lane cemetery.

Okla., Oklahoma City—Oklahoma County, preliminary plans for grading and 21,120 sq. yd. 18-ft. conc. paving, Grand Blvd. road, cost \$50,000; R. S. James, Engr.

Okla., Oklahoma City—City, E. M. Fry, Mgr., plans grading, 5,700 sq. yd. sheet asphalt paving, Walker St., cost \$36,100; W. W. Small, City Engr.

Okla., Shawnee—City, J. C. Coleman, Clk., plans paving Bell St., Farral and Federal Ave., in Street Improvement Dist. No. 79; Neal Wimmer, Mayor.

Okla., Stilwell—City, E. G. Pugh, Mayor, plans expending \$31,000 for 9750 sq. yd. 6-in. conc. paving, Main St.

Okla., Tulsa—City Comm., Dan Patton, Mayor, considering paving Fourteenth St., Gary to Harvard Ave.; expending \$29,349 to pave Knoxville Ave. and widen Ninth St.; Kenneth R. Tels, City Engr.

Tenn., Blountville—Dept. of Highways and Public Works, Harry S. Berry, Commr., Nashville, plans letting contract soon for Bluff City-to-Bristol Highway, State Highway No. 34, Sullivan County.

Tenn., Bristol—City Comm., J. K. Brown, Atty., plans widening to 70 ft., Ninth St., State to Shelby; cost \$20,000. See Financial News.

Tenn., Knoxville—City, W. W. Mynatt, Dir. of Public Service, receives bids Feb. 11 for 600 sq. yd. 2-in. asphaltic conc. on 6-in. conc. base paving; H. J. Wight, City Engr. 1-10

Tenn., Memphis—City plans 56-ft. conc. pavement, Sommer Ave., from old city limits to East Parkway; State to pave 36-ft. wide from new city limits to old city limits.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Feb. 18 for 8 roads and 2 bridges: Taylor County—

3,925 mi. grading, draining, Highway No. 30, from end of Federal Aid Project No. 90-C to Federal Aid Project No. 90-A; W. J. Van London, Res. Engr.; Randall County—5,522 mi. rein. conc., Highway No. 33, Canyon City to 6 mile corner; 8,208 mi. rein. conc., Highway No. 33, 6 mile corner to Amarillo; A. E. Dyatt, Res. Engr.; Kinney County—9,177 mi. grading, draining, Highway No. 131, Brackettville to Spofford; W. F. Hutson, Res. Engr.; Refugio County—17,838 mi. grading, draining, caliche surfacing, Highway No. 5, Hall County line to Childress; S. G. Bacon, Res. Engr.; Jim Wells County—9,788 mi. two course limestone rock asphalt surface course, Highway No. 12-A, Duval County line to Alice; C. E. Wright, Res. Engr.; Hebbroville; Trinity County—9,283 mi. gravel base, crushed stone second course and double bit. surface treatment, Highway No. 106, Groveton to Polk County line; G. R. Abney, Res. Engr.; Bridges: Refugio County—bridge across Aransas River, Highway No. 128, 150-ft. steel span, timber pile trestle approaches; across Mission River, Highway No. 128, 150-ft. steel span, timber pile trestle approaches, cost about \$90,000; Gibb Gilchrist, State Highway Engr.; G. G. Wickline, Bridge Engr.

Tex., Abilene—Taylor County, Tom K. Eplen, Judge, receives bids soon for 13,971 mi. rein. conc., Highway No. 30, Sta. 474 plus 50 at Abilene, to Sta. 1212 plus 20; W. J. Van London, Res. Engr.

Tex., Alice—Jim Wells County, R. B. Mulen, Judge, and State Highway Comm., R. S. Sterling, Chmn., Austin, receive bids, probably, Feb. 18 for 9,788 mi. 2-course limestone rock asphalt surface course, Highway No. 12-A, Duval County line to Alice; C. E. Wright, Res. Engr., Hebbroville.

Tex., Amarillo—Potter County Comms. Court, Sam. B. Motlow, County Judge, receives bids Feb. 9 to furnish gravel and build 2 roads: Gravel surface Oil Field Highway, 40,000 cu. yd. gravel; gravel surface West Tenth St., 9,000 cu. yd. gravel; alternate bids on caliche; H. G. Hamrick, County Auditor. 1-24

Tex., Archer—Archer County, H. V. Pearson, Judge, plans 2 roads: 8,978 mi. rein. conc., Highway No. 79, Sta. 494 to Wichita County line; 18,757 mi. rein. conc., Highway No. 3, Baylor County line to Wichita County line; Guy R. Johnston, Res. Engr.

Tex., Archer City—Archer County, H. V. Pearson, Judge, plans for 2 roads: 16,171 mi. rein. conc., Highway 79, Young County line to Archer City; 9,339 mi. rein. conc., Highway No. 79, Archer City to Sta. 494; Guy R. Johnston, Res. Engr.

Tex., Asherton—City, E. F. Schumann, Mayor, receives bids Feb. 11 for 30,000 sq. yd. Uvalde rock asphalt paving on crushed stone or gravel base, with curb, gutter, walks, etc.; Frank Miksch, City Sec.; F. J. Von Zuben, Consol. and Supv. Engr., 611 Waggoner Bldg., Fort Worth.

Tex., Ballinger—State Highway Comm., R. S. Sterling, Chmn., Austin, plans receiving bids to pave 23 mi. south link, Highway No. 30, Ballinger to San Angelo; engineers making survey for 29 mi. Highway No. 23 through Runnels County.

Tex., Brownsville—Cameron County, Oscar C. Dancy, Judge, plans 17 mi. conc. Highway No. 100, between Point Isabel and Barrera; W. O. Washington, County Engr.

Tex., Brownwood—City receives bids Feb. 12 to hard surface 16 blocks Austin Ave., cost \$90,000; M. Ragsdale, Engr. 1-24

Tex., Crockett—City Council will let contract soon for 10 blocks additional paving in business section.

Tex., Crosbyton—Crosby County considering paving north and south highway through county. See Financial News.

Tex., Crosbyton—Crosby County, Edgar Hutchins, Judge, plans 10 mi. grading bridges and asphalt surfacing, Highway No. 53, Dickens County line to Crosbyton, Road Dist. No. 1, estimated cost \$120,000.

Tex., Dallas—Dallas County, John A. Rawlins, County Judge, considering widening North Akard St., from Pacific Ave. through to Cedar Springs road; cost about \$750,000.

Tex., Dallas—City Comm., R. E. Burt, Mayor, plans opening, widening and extending Cockrell St., Santa Fe tracks to Forest Ave.; Forest Ave., Wall to Cleveland; John M. Young, City Engr.

Tex., Denton—State Highway Comm., R. G. Sterling, Chmn., Austin, plans resurfacing Denton east road, from Little Elm to Collin County line; will survey route west from Denton to Decatur; may gravel Highway No. 39 from Denton to McKinney; plans repairing road from Lake Dallas to Lake Dallas dam; Gibb Gilchrist, State Highway Engr.

Tex., Denton—Denton County, Walter A. Koons, Judge, plans 8,326 mi. grading, drain-

ing, Highway No. 40, end of Federal Aid Project No. 117 to Dallas County line; T. C. Bittle, Res. Engr., Lewisville.

Tex., Fairfield—Freestone County, P. O. French, Judge, plans 17 mi. grading, draining, rein. conc., Highway No. 32, Fairfield to Leon County line; Mack B. Hodges, Res. Engr., Teague.

Tex., Fort Worth—Tarrant County, Damon A. Davis, completed survey for county end of new pike, joining Fort Worth and Dallas; gravel first and hard surface later; Joe Schooler, County Commr.

Tex., Galveston—Galveston County, E. B. Holman, Judge, plans 3,787 mi. 20-ft. rein. conc., Highway No. 6, extension, from intersection with Highway No. 6, Galveston-Houston road to Texas City, estimated cost \$180,000; C. C. Washington, County Engr.

Tex., Hallettsville—Lavaca County, Aug. W. Janzen, Judge, plans 10 mi. grading, draining, Highway No. 109, Henkhous to Midway; W. H. Koether, County Engr.

Tex., Kaufman—Kaufman County, Chas. Ashworth, Judge, plans 2 roads: 11,506 mi. grading, draining, Highway No. 34, Kings Creek to Trinity River; 3,311 mi. grading, draining, Highway No. 15, Forney to Dallas County line; W. F. Pass, Res. Engr., Terrell.

Tex., Kerrville—State Highway Dept., R. S. Sterling, Chmn., Austin, probably receive bids in Feb. for about 11 mi. surfacing, Highway No. 41, Kerr County; Gibb Gilchrist, State Highway Engr.

Tex., Leakey—Real County and State Highway Comm., R. S. Sterling, Chmn., Austin, receive bids soon for 265 mi. Highway No. 55, including 1,400 ft. grading, and bridge across Edwards Creek.

Tex., Livingston—Polk County, James E. Hill, Judge, plans 20 mi. grading, draining, surfacing Highway No. 106, Carmona to Tyler County line.

Tex., Marshall—City Planning Committee, E. L. Wells, Jr., Chmn., considering widening East Houston Ave.; W. C. Albright, City Engr.

Tex., Matador—Motley County, J. Floyd Jordan, Judge, plans 13,504 mi. grading, draining, Highway No. 28, Floyd County line to Matador; E. W. Mars, Res. Engr.

Tex., Plainview—Hale County, E. C. Abernathy, Judge, plans 20,945 mi. rein. conc. Highway No. 9, Hale Center to Swisher County line, estimated cost \$620,000; Larry O. Cox, Res. Engr.

Tex., Quanah—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids, probably, Feb. 18 for 2 roads in Hardeman County: 6,708 mi. rein. conc., Highway No. 5, Childress County line to Goodlet; 8,093 mi. rein. conc., Highway No. 5, Goodlet to Quanah; John B. Nabors, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Tex., Rockport—Aransas County, C. Spencer, Judge, plans 8,390 mi. grading, draining, Highway No. 57, Rockport to Copana Bay, estimated cost \$25,000; Fred M. Percival, Res. Engr.

Tex., San Antonio—City, C. M. Chambers, Mayor, receives bids Feb. 11 to improve and lay conc. curbs on 4 streets, including Claudia, Durango; I. Ewig, City Engr.

Tex., San Antonio—City, Paul E. Steffler, Commr., plans receiving bids for 4 additional streets; I. Ewig, City Engr.

Tex., Sherman—Grayson County, A. S. Noble, Judge, plans 3,215 mi. grading, draining, Highway No. 5, Cooke County line to Sta. 165 plus 00; J. G. Rollins, Res. Engr.

Tex., Seguin—Guadalupe County, J. B. Williams, Judge, plans 8,219 mi. 20-ft. gravel surface, from Seguin to point north of Gerinimo; Copt. A. Schlafi, Res. Engr.

Tex., Sierra Blanca—El Paso-Hudspeth County Road Dist., Jesse C. Williams, Judge, and State Highway Comm., R. S. Sterling, Chmn., Austin, receive bids, probably, Feb. 18 for 3,222 mi. grading, draining, conc., Highway No. 1, Camp Rice Arroyo to McNary Bridge; Fred Wilson, Res. Engr.

Tex., Sinton—San Patricio County, J. C. Houts, Judge, plans 20,547 mi. grading, draining, Highway 128, from point at Nueces River, through Sinton to point at Aransas River; Fred M. Percival, Res. Engr.

Tex., Snyder—Scurry County, Horace Holley, Judge; Mitchell County, Chas. C. Thompson, Judge, plan 9,233 mi. grading, draining, Highway No. 7, Nolan County line to Scurry County line, in Mitchell County; from Mitchell County to Hermleigh, Scurry County; S. C. Dougherty, Res. Engr.

Tex., Vernon—Wilbarger County, J. V. Townsend, Judge, plans 20 mi. grading, draining Highway No. 23, Vernon to Red River,

estimated cost \$80,000; also bridge across Red River connecting Highway No. 23 with Highway No. 24, Oklahoma, estimated cost \$60,000; John B. Nabors, Res. Engr.

Tex., Waxahachie—W. A. Spalding, Res. Engr., preparing plans for Highway No. 6, Ellis County: From end of pavement to left across Grove Creek, then to Sterrett, on to creek; build underpass under interurban railway tracks; second route proceeds east of other route; \$200,000 appropriated.

Tex., Wichita Falls—F. R. Knauth, Wichita County Commr., Burkburnett, J. M. Isbell, County Engr., making survey for road parallel to Burkburnett-Clara Highway on north.

Va., Covington—State Highway Comm., H. G. Shirley, Commr., Richmond, received low bid from Hall & Mitchell, Keswick, Va., \$9,214, for .321 mi. 2-in. bit. macad. paving, Route 14, Allegany County, from point west Jackson River, west. 1-17

Va., Denbigh—State Highway Comm., H. G. Shirley, Commr., Richmond, plans expending \$100,000 to straighten curves and bends in improving conc. highway from Lee Hall, Warwick County to Newport News.

Va., Richmond—City, R. Keith Compton, Dir. of Public Works, considering widening Twelfth St., south of Carey St.

Va., Warm Springs—State Highway Comm., H. G. Shirley, Commr., Richmond, appropriated \$75,000 for road improvement in Bath County: Surface with river gravel and oil treat road between Warm Springs and Millboro Springs.

W. Va., Middlebourne—Tyler County considering \$200,000 road building in McElroy Road Dist. See Financial News.

W. Va., Moundsville—City Council plans paving and resurfacing various streets, including Ninth, Third St., Grant and Patriot Ave.

Contracts Awarded

Ala., Montgomery—City Comm. let contract to Robt. G. Lassiter & Co., Shepherd Bldg., \$43,257, to pave Winona Ave., Lassiter to Saffold St., Capitol Heights.

Ark., Fayetteville—City Comms. plan expending about \$20,000 for 10-ft. wide paving, alleys in business section.

Fla., Miami—City Comms., H. E. Ross, Clk., let contract to Robert G. Lassiter Co., S. W. Twenty-seventh Ave., to pave S. E. Second Ave., between S. E. Second St. and north approach to bridge. 1-17

La., Crowley—City, I. B. Broussard, Clk., reported, let contract to A. H. Barnes, Crowley, to shell 18 blocks of streets; M. M. Bernard, Engr.

La., New Orleans—City let contract to Southern Uvalde Asphalt Co., New Orleans Bank Bldg., \$46,457, for curbing, and 8,880 sq. yd. Uvalde rock asphalt on conc. paving Vallette St.

Miss., Columbia—City, H. L. White, Mayor, let contract to So-Clay Paving Co., Chattanooga, Tenn., \$20,000, to pave North Main St., Lafayette to corporate limits.

Mo., Cape Girardeau—Rouse Construction Co., contractors for 9½ mi. Highway No. 61 between Cape Girardeau and Williams Creek Bridge, let contract to Hely Stone Co. to furnish 500 carloads of crushed stone.

Okla., Alva—City, Thos. W. Keltch, Clk., reported, let contract to Highway Construction Co., Kennedy Bldg., Tulsa, for 6-in. plain conc. paving in Dist. No. 16. 1-10

Okla., Cordell—Washita County let contract to J. D. Mann & Co., Petroleum Bldg., Oklahoma City, \$42,476, for grading and 6100 sq. yd. graveling, Road No. 4.

Okla., Lindsay—City, C. A. Sanders, Mayor, let contract to L. Hamilton, Pauls Valley, \$54,693, for grading, 49,400 sq. yd. graveling on 5 streets. 12-13

Okla., Shawnee—City, J. C. Coleman, Clk., let contract to H. L. Cannady Co., 1122 S. Lewis St., Tulsa, to widen Broadway from Ninth to Eleventh St.

Okla., Tulsa—City Comm., Dan Patton, Mayor, let contract to Highway Construction Co., Kennedy Bldg., \$18,556 for paving in Dist. No. 924 and 925.

Tex., Amarillo—Amarillo Construction Co., 614 Lipscomb St., has contract, \$28,640, for 35-ft. two course penetration on 8-in. gravel paving, Arthur St.

Tex., Plainview—City let contract to Jordan Construction Co., Plainview, \$34,000, for 5 blocks 2½-in. brick on 5-in. conc. paving.

Tex., San Angelo—City Comm. let contract to W. S. Thomson, \$42,380, for 9 blocks asphalt paving, North Chadbourne St.

Sewer Construction

Sewer construction in **LAND DEVELOPMENT** projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported

Ala., Anniston—H. P. Harris, City Engr., will prepare survey of Division 2, for installation of sewer lines.

Ala., Anniston—City plans installing 6 blocks of sewage on Front and Constantine Aves. and number of fire hydrants.

Ala., Birmingham—Sullivan, Long & Hagerty, Bessemer, have contract at \$20,704 for sewers; Holt Rast, 707 Tusculum Ave., at \$9163, for sewers in Homewood.

Ala., Birmingham—City, A. J. Hawkins, City Engr., advises no bids asked or received for storm sewers as lately incorrectly noted. 1-10

Ark., Fort Smith—City plans sewer extension on Carnall Ave., probable cost \$53,000; O'Shea and Peck, Engrs. 11-29

Ala., Montgomery—Hodgson-Jones Const. Co., N. Perry St., has contract for storm sewers; J. M. Garrett, City Engr. 1-10

Ky., Ashland—City soon begin construction of sewers in Grayson Rd. section and at Keys Creek; cost \$75,000; Carl Gesling, City Engr. 11-22

La., New Orleans—H. W. Bond & Bros., 1025 Capernicus St., has contract for sub-surface drainage system in Baronne, DeMont-luzin and Lowerline St.; Manning & Gallavan, New Orleans, for Cleveland Ave.

La., Port Allen—City plans installing sewer system; L. J. Voorhies, Const. Engr., Baton Rouge; may vote on bonds.

Md., Baltimore—Dante Const. Co., 216 S. Bond St., has contract at \$41,204 for sanitary sewers and sanitary drains; Milton J. Ruark, Engr., 312 Municipal Office Bldg.

Okl., Ada—City plans installing sewer system; Black & Veatch, City Engrs., Mutual Bldg., Kansas City, Mo.

Tex., Clifton—City voted \$30,000 sewer bonds.

Tex., Dallas—City, Mayor Burt, Mayor, recommended appropriation of \$750,000 for storm sewers.

Tex., Dalhart—James Stanton & Son have contract for sewer extension.

Tex., Houston—City soon receive bids for storm sewers on Woodhead and Dunlavy Sts.

Tex., Houston—City soon call for bids for storm sewers; cost \$60,000.

Tex., Jourdan—Southwestern Sewer Co. granted franchise for sewer system.

Tex., Llano—City Council and Business Men's Luncheon Club interested in sewerage plant.

Tex., Port Arthur—See Water Works.

Tex., Valley Mills—City voted \$30,000 sewer bonds. 1-10

Telephone Systems

Fla., Tallahassee—George M. Forman & Co., 12 W. Adams St., Chicago, Ill., acquired stock of Southern Telephone and Construction Co., supplying Leon and Wakulla Counties with telephone facilities; becomes effective Mar. 1.

Fla., Tampa—Lehigh Steel Co., Allentown, Pa., advises has contract for structural steel for \$250,000 building for Western Union Telegraph Co., Inc., Newcomb Carleton, Pres., 195 Broadway, New York. 1-31

La., Jena—La Salle Telephone Co., Inc., F. M. Usery, Pres., increasing capital \$30,000.

Md., Hyattsville—Chesapeake and Potomac Telephone Co., A. E. Berry, Pres., 723 13th St., N. W., Washington, D. C., receives bids about Mar. 15th, for telephone exchange; 3-story brick and stone; Gmelin, Voorhees & Walker, Archt., 1343 H St., N. W., Washington, D. C.

Okl., Tulsa—Southwestern Bell Telephone Co., C. W. Milk, Building Engr., Pioneer Bldg., probably receive bids on new telephone addition about Feb. 15. 1-24

Tex., Uvalde—Southwestern Bell Telephone Co., B. D. Hull, Ch. Engr., Merchants Bldg., Dallas, soon begin program of improvements calling for expenditure of approx. \$100,000; calls for new exchange building and installing common battery or flashlight system of calls to replace ringing system; install more circuits between here and San Antonio.

Va., Richmond—Richmond Broadcasting Co., capital \$15,000, incorporated; H. C. Lukhard, 1612 Wilmington St.

Textile Mills

Ala., Selma—J. A. Fuller, Pres., Selma Chamber of Commerce, interested in construction of \$300,000 textile mill by outside capitalists, local subscription of \$250,000; will incorporate local company. 10-18

Ga., Columbus—Ace Knitted Fabric Mills incorporated; W. B. Fortson, 1809 Lake Dr.

Ga., Thomaston—B. F. Goodrich Rubber Co., Akron, O., having plans completed by Robert & Co., Inc., Engrs., Bona Allen Bldg., Atlanta, for Martha Mills and will probably be ready for distribution by Feb. 9. 1-24

Miss., Gulfport—Walcott & Campbell Spinning Co., New York Mills, N. Y., having plans prepared by Robert & Co., Inc., Bona Allen Bldg., Atlanta, Ga., for 20,000 spindle mill and village. 1-31

N. C., Monroe—Union Mills Co. of West Monroe, capital \$200,000, chartered; C. W. Johnston, W. H. Belk.

S. C., Spartanburg—H. A. Ligon, Greenville, reported, interested in establishment of \$1,000,000 bleachery and finishing plant in Spartanburg County; has site under option; initial capacity of 2,000,000 yds. cloth weekly, with facilities for bleaching, dyeing and finishing cotton, silk and rayon cloth; also erect mill village. 1-24

Tenn., Columbia—Cadet Knitting Co., Second and Allegheny Sts., Philadelphia, Pa., W. M. Pepper, Pres., plans expansion program involving refinancing and construction of full fashioned hosiery plant; Bd. of Directors approved plans, stockholders vote Feb 5; Caldwell & Co., Nashville, Tenn., will refinance company; capitalization of company will consist of authorized issue of \$2,000,000 15 yr. 6 1/2% sinking fund debentures, 5000 shares of cumulative 7% preferred stock and 50,000 shares of Class A preference \$2 cumulative stock and 250,000 shares of common; construction of plant to begin soon; plans being prepared for new unit; install 50 machines with facilities for additional 50; will probably incorporate Cadet Hosiery Co., Inc.; hosiery will be knit in the South and shipped to Philadelphia for dyeing. 1-10

Tenn., Morristown—Stockholders of Morristown Knitting Mills, Inc., voted to increase capital to \$25,000.

Tenn., Nashville—Hartford Knitting Mills, capital \$50,000, incorporated; F. H. Crow, 42nd Ave., N.

Tenn., Sevierville—Sevierville Hosiery Mills, T. J. Campbell, Pres., acquired and will operate hosiery mill formerly owned by Charles H. Bacon Co.

Va., Covington—Industrial Rayon Corp., 98th St. and Walford Road, Cleveland, Ohio, let contract to T. M. Gathright for steel fencing for rayon plant. 1-31

Va., Norfolk—Percy Kent Bag Co., Inc., 238 44th St., Brooklyn, N. Y., Edw. W. Sparks, Pres., advises proposed plant here will be 1 story, brick with 40,000 sq. ft. floor space; being constructed for West Ghent Realty Co., by Meredith & Tazewell, Inc., Contrs.; machinery and equipment will be moved from Brooklyn plant and an additional small amount of new machinery purchased; will manufacture all kinds of burlap and cotton bags, capacity of about 40,000,000 bags yearly.

Water Works

Details of water works improvements in connection with the many **LAND DEVELOPMENT** operations will be found under that classification.

Ark., Parkdale—W. F. Moody & Co., A. O. U. W. Bldg., Little Rock, has contract at \$15,000 for water works; install pumps and galv. pipe.

Ga., Brunswick—Mutual Water Co. incorporated; F. E. Shumate, W. H. Wright; own and operate system of water works.

La., Monroe—City authorized M. P. Hatcher, to prepare plans for dam and pump station at Bayou deSiard; opens bids April 3 for construction. 12-13

Mo., St. Louis—Bd. of Public Works receives bids Feb. 13 for constructing shore intake at Chain of Rocks plant. See Want Section—Bids Asked.

Okl., Calera—City plans rebuilding water works; A. Fitzpatrick, Clk.

Okl., Tulsa—Standard Paving Co., 2119 E. 11th St., reported, low bidder at \$398,797 for filtration plant at Mohawk. 1-17

Tenn., Livingston—S. G. Blowers, Nashville, representing St. Louis capitalists, plan installing water works system.

Tenn., Memphis—Water Comsn. approved laying of water mains from city reservoir to plant of Murray Corp. of America.

Tenn., Riceville—C. L. Williams, Business Mgr., Ingleside Water Co., Athens, install water works system; acquired spring with flow of 2,000,000 gal. daily.

Tex., Brackettville—City receives bids Feb. 11 for water works system. See Want Section—Bids Asked.

Tex., Edinburg—Hidalgo County Water Improvement Dist. No. 2, San Juan, receives bids Feb. 28 for construction conc. canal.

Tex., Granger—W. G. Cullum & Co., Central Bank Bldg., Dallas, low bidder for extension and reconstruction of water works system. 1-17

Tex., Hamlin—City having preliminary survey made for water works.

Tex., Oak Cliff, Dallas—City Comm. opens bids Feb. 25 for storage reservoir, capacity 5,300,000 gal.

Tex., Port Arthur—City, C. B. Moore, Commr., extend water and sewer lines into outlying districts.

W. Va., Charleston—Kanawha Water Co., capital \$100,000, incorporated; J. Y. Riffe, Peoples Exch. Bk. Bldg.

W. Va., Parkersburg—City plans water works improvements; may construct reservoir.

Woodworking Plants

La., Monroe—Eckhardt Stave Co., Inc., capital \$15,000, chartered; H. C. Eckhardt, 200 Alexandria Ave.

S. C., Charleston—Endlaid Flooring, Inc., capital \$250,000, chartered; J. Freeman Williams, 64 Vanderhorst St.; Harry J. O'Neill, 173 Broad St.; manufacture and market Cypress "Endlaid Flooring"; acquired plant of Williams-Gable Mfg. Co.

FIRE DAMAGE

Ark., Dermott—Bimel-Ashcroft Mfg. Co.'s 12-section dry kiln, loaded with hickory timber; loss approx. \$65,000.

Ga., Atlanta—F. E. Hogan's residence, 271 South Ave., N. E.

Ga., Chamblee—Building at Irvingdale Dairy and Poultry Farm; loss \$12,000.

Ga., Hartwell—Mrs. Rosie Hicks' residence.

Ga., Waynesboro—Lon Blount's residence.

Ky., Booneville—Owsley County courthouse; loss \$75,000. Address Bd. of Comms.

Ky., Lexington—Kentucky Hatcheries; D. D. Slade, Owner; loss \$100,000.

La., Estherwood—Hoffpauir Mercantile Co.'s store; loss \$35,000.

La., Pioneer—Pioneer Cooperage Bldg. owned by Roy Scales, Delhi; loss \$22,000.

La., Waterproof—Sawmill of Chicago Mill and Lumber Co., 111 W. Washington St., Chicago, Ill.; loss \$100,000.

Md., Baltimore—Mattress factory of R. C. Heller Co., 36 S. Frederick St.

Md., Salisbury—Peninsula Hotel, owned by J. D. Shockley & Co., and Chas. Birkhead; loss \$150,000.

Miss., Benton—Anderson & Hood's store.

Mo., California—Grade School; loss \$40,000. Address Bd. of Education.

Mo., Cape Girardeau—National Guard Armory; loss \$50,000. Address Commandant.

Mo., Cape Girardeau—Building at 625 Good Hope St. owned by Mrs. J. A. Withers, 141 S. Louisiana Ave.; loss \$20,000.

Mo., Hannibal—Elks Bldg.; loss \$40,000. Address Benevolent Protective Order of Elks.

Mo., Hendrickson—High School. Address Bd. of Education.

Mo., Moberly—High School; loss \$150,000. Address Bd. of Education.

Mo., Novinger—Buildings occupied by Elsea General Merchandise Store, Howerton Drug Store, Sam Halley's barber shop, Dr. R. E. Trunnell, dentist, and Dr. H. T. Garrison, physician.

Mo., Richards—Buildings occupied by R. T. Cox barber shop, Pyle restaurant, Hubert Cox drug store, C. D. Skinner's store, Z. J. Young grocery, W. S. Lowry hardware store.

Mo., St. Louis—Building at 1610-12 S. Broadway occupied by Alfred Steiner, Inc.,

and William Schatz; building, 1614 S. Broadway occupied by Newark Shoe Stores Co.; loss \$10,000.

Mo., St. Louis—Building owned by Yawitz Corp., occupied by Century Chemical Co., Wm. Holz, Proprietor.

N. C., Hendersonville—Eubank Bldg., Main and Third Ave. (address The Owner); Walker Furniture Store; loss \$40,000.

N. C., Pittsboro—Buildings owned by J. C. Lanus Estate, occupied by Bank of Pittsboro, F. C. Mann hardware store, B. H. Perry grocery store, Boone Bros. grocery store, Odell Manufacturing Co., Dr. W. B. Caffin.

N. C., Forest City—Cowan Blanton's building occupied by Leader Department Store of Jack Michalove.

N. C., Hollis—Corn mill and cotton gin of Malchi Whishaut and Clingman Black.

N. C., Kinston—Adler Brothers' department store; loss \$200,000.

N. C., Lexington—Norman McCrary's residence, Highway No. 10.

N. C., Raleigh—Chapter House of Sigma Nu fraternity at North Carolina State College.

N. C., Bailey—Auto Service Co.'s garage; operated by A. B. Bissette.

N. C., Spencer—L. H. Good's residence; loss \$7,000.

Okla., Holdenville—Griffin Wholesale Grocery Co.'s warehouse, R. B. McPhail, Mgr.

Okla., McAlester—Potato curing plant on C. O. Doss farm; loss \$10,000.

Okla., Muskogee—St. Pauls M. E. Church, South; loss \$40,000.

Okla., Muskogee—Six-car garage, Soldiers' Memorial Hospital; loss \$30,000. Address The Supt.

Okla., Ponca City—Taggart-Lutz Department Store; loss \$80,000.

Okla., Roff—Post Office. Address The Postmaster.

S. C., Anderson—Barton Lumber Co.'s machine shop.

S. C., Columbia—W. M. Kimbrell's residence, Fourth Ave. and College Place.

S. C., Florence—Allen Thomas' residence.

S. C., Greenville—Fahnestock & Edwards' garage, 210 N. Brown St.; owned by Frank Edwards and T. V. Fahnestock.

S. C., Harleyville—Carl T. Julian's residence.

Tenn., Knoxville—Apartment at 510 W. Hill Ave., owned by J. H. Wilson; loss \$25,000.

Tenn., Murfreesboro—Merry Maid Gas Mfg. Co., C. W. Covington, Propr.; loss \$20,000.

Tenn., Trezevant—High School; loss \$30,000. Address Bd. of Education.

Tex., Abilene—Administration building at Abilene Christian College; loss \$75,000; Dr. Batsell Baxter, Pres.

Tex., Bryan—B. Patrenello's building occupied by J. M. Salidner's confectionery store and cotton office; loss \$14,000.

Tex., Colorado—Conoway School, 15 mi. from Colorado; loss \$10,000. Address School Trustees.

Tex., Cuero—Machine shop of Cuero Cotton Oil Mfg. Co.; loss \$15,000.

Tex., Humble—Grammar School; loss \$50,000. Address Bd. of Education.

Tex., Houston—Residences of M. Duncan, 2009 Cushing St., A. Hooper, 2002 Cushing, and others.

Tex., Oak Cliff, Dallas—Cliff Hotel, 204 E. Jefferson Ave., managed by H. J. Pickney.

Tex., Paint Rock—Passenger station of Atchison, Topeka and Santa Fe Ry. Co., M. C. Blanchard, Ch. Engr., Amarillo, Tex.

Tex., Terrell—Hotel Walton owned by O. F. Walton; O. F. Walton Lumber Co.'s offices and show rooms; loss \$35,000.

Va., Churchville—Turner Ashby's store and residence; loss \$25,000; Wm. C. Gilbert's garage and supply shop; Tiptop Grocery Store; W. E. Hughes' store.

Va., Richmond—Building at 207 E. Broad St., occupied by Millrose Stores, Inc.; loss \$50,000.

Va., South Boston—Grand Central Warehouse owned by James H. Wilson, Danville; DeJarnett's Restaurant; loss \$200,000.

W. Va., Fairmont—Residences of James Jones, Westchester, and John Butcher, Uzztown.

office building, Monroe St.; \$300,000, white cut stone and rein. conc., 4 stories and basement with foundation to carry 10 stories, 100x100 ft.; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg.; John B. Hawley and S. W. Freese, Consit. Engrs.; M. C. Nichols, Asso. Consit. Engr., all Capps Bldg. 1-3

Tex., Refugio—First National Bank erect brick and conc. bank and office bldg.; 2 stories, about 27x56 ft.; John M. Marriott, Archt., Frost Bldg.; Roy W. Leible, Asso. Archt., both San Antonio.

Tex., San Antonio—Central Power & Light Co. erect office bldg.; rein. conc. and brick 30x58 ft.; John M. Marriott, Archt., Frost Nat'l Bk. Bldg., San Antonio; drawing plans.

Va., West Point—Albermarle-Chesapeake Co., Inc., H. Watson Ellerson, Vice-Pres., erect \$40,000 office bldg.; Lee, Smith & Vandervoort, Archts., Sixth and Franklin Sts., Richmond.

Churches

Ark., Jonesboro—St. Romans R. C. Church, Rev. W. F. Kordsmeier, Pastor, having plans drawn by Henry Dreisoerner, 3543 Humphrey St., St. Louis, Mo., for stone building; 1 story and part basement, 58x140 ft., tile roof.

Ark., Little Rock—B'Nai Israel Congregation, Capitol Ave. and Broadway, M. L. Althelmer, Pres., plans synagogue on new site.

Fla., Apalachicola—St. Patrick's R. C. Church erect \$35,000 bldg., Avenue C and Sixth St.; brick, stone trim, conc. foundation, slate and comp. roof; John J. Carey, Archt., Lafayette St., Mobile, Ala.

Ga., Hapeville—Methodist Church has low bid at \$27,491 from H. F. Hood for remodeling and erecting addition to building; Hents, Adler & Shutz, Archts., Candler Bldg., Atlanta. 1-17

Ga., Marietta—Marist Fathers, care Rev. M. A. Cotter, 335 Ivy St., N. E., Atlanta, plans church; brick, steel frame, 1 story and basement, about 38x50 ft.; Clerk & Lieberman, Archts., Henry Grady Bldg., Atlanta.

Md., Baltimore—St. Joseph Monastery, Frederick Ave., having plans drawn for \$500,000 church; steel frame, stone, 3 stories, tile floors, metal roof; accommodate 1000; Palmer & Lambdin, Archts., 513 N. Charles St.; C. L. Reeder, Mech. Engr., 916 N. Charles St. Noted 9-27 under Schools.

Md., Baltimore—Protestant Episcopal Cathedral Foundation, Dr. Arthur Chilton Powell, Sec., Stony Run Lane and University Pkwy., has new plans by Frohman, Robb & Little, Archts., 140 Boylston St., Boston, Mass., and 16 Jackson Place, Washington, D. C., for cathedral, pro-cathedral, chapter house, choir rooms, sacristies and offices, library and residences for bishop and dean of pro-cathedral, Charles St. and University Pkwy.; cathedral to seat 3000, probably of limestone; pro-cathedral to seat 700, of stone from quarry owned by Rt. Rev. John Gardner Murray, Bishop of Maryland, with trim, window tracery, columns and arches of Indiana limestone. 6-14

Md., Cumberland—Methodist Episcopal Church, South, Rev. F. C. Waggoner, Pastor, 23 Humbird St., considers erecting \$45,000 church and Sunday school; brick, 2 stories; plans by H. M. King, Architectural Sec., Bd. of Extension of M. E. Church, South, 1115 S. Fourth St., Louisville, Ky.

Miss., Blue Mountain—Fellowship Baptist Church near Blue Mountain, Rev. C. S. Wales, Pastor, plans building.

Mo., Kansas City—Wornall Baptist Church, Wornall Rd. and Meyer Blvd., erect \$120,000 bldg.; brick and stone, 3 stories; Felt, Dunham & Kriehm, Archts.; Fred Michaelis, Supvg. Archt., both Balcony Bldg.

Mo., North Kansas City, Kansas City—Lutheran Church, Rev. C. Reittel, Pastor, 3851 Bellefontaine St., erect 1-story brick bldg.; H. C. Eckland & Co., Archts., Finance Bldg., Kansas City.

Mo., St. Louis—Second Presbyterian Church, Taylor Ave. and Westminster Place, Dr. John M. MacIvor, Pastor, selected LaBeaume & Klein, Amer. Tr. Bldg., as architects for \$350,000 to \$400,000 Sunday school; brick and rein. conc., 3 stories. 1-31

N. C., Smithfield—Missionary Baptist Church, Rev. J. M. Page, Pastor, erect \$50,000 building.

Okla., Muskogee—St. Pauls M. E. Church, South, Rev. C. D. Montgomery, Pastor, rebuild church noted burned at \$40,000 loss.

S. C., Camden—Baptist Church erect rein. conc. and brick building; stone trim, hardwood floors, comp. and slate roof, steam heat; Perry, Shaw & Hepburn, Archts., 177 State St., Boston, Mass.; Lockwood Greene Engineers, Inc., Asso. Archts.-Engrs., Charlotte, N. C.; bids Feb. 4; following contractors estimating: Moore & Gardner; R. E.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Miss., Jackson—Lodge No. 30, K. of P., J. B. Murray, Chmn., Bldg. Comm., select architect in few days for brick and stone Pythian Castle, N. President and Yazoo Sts.; 40x80 ft., stores on first floor.

Mo., Springfield—Goad-Ballanger Post, American Legion, have plans completed in few days for \$27,000 clubhouse; Heckenlively & Mark, Archts., Landers Bldg. 2-23-28

Okla., Guthrie—Order of Eastern Star erect \$150,000 children's home; brick, 2 stories; Hawk & Parr, Archts., Cotton Exch. Bldg., Oklahoma City.

Tex., Fort Worth—Masonic Temple Assn. organized to erect \$1,000,000 temple, Texas and Henderson Sts.

W. Va., Martinsburg—Benevolent Protective Order of Elks erect \$30,000 lodge building.

Bank and Office

Ark., Little Rock—W. B. Worthen Co., Boyle Bldg., receives bids Feb. 12 for 2-story and basement bank building, Fourth and Main Sts.; \$200,000. Carthage or Batesville stone exterior, 50x140 ft., conc. and steel, 22-ft. ceiling in banking room; marble, terrazzo and cement floors, conc. foundation, comp. roof; 3 vaults to cost \$50,000; Geo. E. Mann, Wanger & King, Archts., Donaghey Bldg. 10-18

D. C., Washington—American Red Cross, Miss Mabel Boardman, Natl. Sec., 17th and D Sts., N. W., having sketches drawn by Trowbridge & Livingston, Archts., 527 Fifth Ave., New York, for \$600,000 office building; brick, 4 stories.

Ga., Atlanta—Walter Candler, Candler Bldg., plans to enlarge 10-story Walton Bldg., Cone and Walton Sts.; rein. conc., steel and brick, tar and gravel roof.

La., Castor—Castor State Bank, W. M. Caskey, Pres., rebuild burned bank.

Miss., Clarksdale—Virden Lumber Co. erect \$11,000 office bldg., Sunflower Ave.; English type.

Miss., Jackson—Merchants Bank & Trust Co., R. E. Kennington, Chmn., Bd. of Directors, erect \$800,000 bank and office bldg., Capitol and Lamar Sts.; 12 stories; first unit 43x108 ft.; additional 30-ft. unit later; to select architect.

Miss., Jackson—Southern Building & Loan Assn., Thad B. Lampton, Pres., have plans by N. H. Austin, Archt., Daniel Bldg., 2-story office bldg., ready for bids in about 3 weeks; brick, terra cotta trim, rein. conc. foundation, wood and tile floors, built-up comp. roof, plate glass window fronts, misc. steel and iron, bank fixtures, vaults. 1-24

Miss., Newton—Citizens Bank, H. N. Brown, Cashr., remodel building; install new fixtures; \$20,000; P. J. Krouse, Archt., M. & W. Bldg., Meridian.

Mo., Kansas City—Natklin Engineering Co., B. Natkin, Pres., Mutual Bldg., considers erecting 3-story brick office bldg., 314 W. Tenth St.

Mo., Kansas City—Wm. L. Rock, 1108 Grand Ave., remodel 6-story office and store bldg., same address; Chas. A. Smith, Archt., Finance Bldg.

Okla., Olustee—First National Bank and Farmers State Bank consolidated; J. I. Dyer, Vice Pres.-Managing Officer; remodel building.

Tenn., Knoxville—Fidelity Trust Co., M. D. Arnold, Pres., purchased Cowan-McClung Bldg., Gay St. and Union Ave.; either remodel or raze and erect new structure; Baumann & Baumann, Archts., 813½ Market St., Knoxville; Robt. G. Lose, Engr., Forsyth Bldg., Atlanta, Ga. 1-31

Tex., Dallas—Chamber of Commerce, Frank L. McNeeney, member, may add 1 or 2 stories to Chamber of Commerce Bldg., Commerce and Martin Sts.

Tex., Fort Worth—Fort Worth Gas Co., O. K. Shannon, Pres., receives bids Feb. 8 for

Chuwning; Geo. A. Creed; Jim Robinson; Carolina Construction Co., all Camden; Brown-Harry Co., E. Main St., Gastonia, N. C.; Southeastern Construction Co., 210 W. Second St.; T. C. Thompson & Bros., 609 N. Smith St.; J. B. Thomas, 404½ S. Tryon St., all Charlotte.

S. C., Charleston—Trinity M. E. Church, 275 Meeting St., receives bids Feb. 15 at office J. D. Newcomer, Archt. for Sunday school; brick, 3 stories, 59 x 62 ft., wood floors, conc. foundation, tin roof, \$25,000; third floor unfinished.

Tenn., Memphis—Central Baptist Church, Harry E. Bovay, member, 1263 Agnes St., approved plans and specifications for \$1,000,000 church and hotel-apartment bldg.; brick, stone, rein. conc. and steel, 135x150-ft., conc., tile and wood floors, cut stone, steam heat; James J. Broadwell, Archt.; Geo. Mahan, Jr., Asso. Archt., both Amer. Bank Bldg.

Tex., Amarillo—Johnson's Chapel Methodist Church, Colored, Rev. J. M. Bolding, Pastor, plans church.

Tex., Amarillo—First Congregational Church, Dr. Robt. F. Allingham, Pastor, erect \$50,000 to \$75,000 building; \$30,000 unit first; plans drawn.

Tex., Austin—A. D. Bolm, 1306 West Ave., let contract at \$23,433 to Weise Bros., 2000 Red River St., for residence; brick veneer, 2 stories and basement, rein. conc. foundation, oak floors, tile roof, incinerator, gas furnace; H. F. Kuehne, Archt., Littlefield Bldg. 1-10

Tex., Fort Worth—Texas Christian University Church, care E. M. Waites, Pres., Texas Christian Univ., having final plans drawn by W. G. Clarkson & Co., First Natl. Bk. Bldg., for church adjoining campus; John B. Hawley and S. W. Freese, Conslt. Engrs.; M. C. Nichols, Asso. Conslt. Engr., all Capps Bldg.; call for bids in Feb.

Tex., Fort Worth—First M. E. Church, Dr. E. B. Hawk, Pastor, having plans drawn by W. G. Clarkson & Co., First Natl. Bank Bldg., for \$600,000 building, W. Fifth St. near Macon St.; John B. Hawley and S. W. Freese, Conslt. Engrs.; M. C. Nichols, Asso. Conslt. Engr., all Capps Bldg. 10-11

Tex., Lufkin—Protestant Episcopal Church has permit for repairs and additions to bldg.; \$15,000. Address The Rector.

Tex., Mercedes—Protestant Episcopal Church, Mrs. Florence Kalbfleisch, Chmn., Fund Comm., erect parish house, Third and Washington Sts.; R. Newell Waters, Archt.; work start within 30 days.

W. Va., Clarksburg—Broad Oaks M. E. Church accepted plans and specifications of C. H. Snider, Archt., Professional Bldg., Fairmont, for building; work probably start in March.

City and County

Ala., Huntsville—City Council considers enlarging city hall.

Fla., Palatka—Board of Bond Trustees, Dr. A. B. Harbison, Chmn., soon start work on \$10,000 convict stockade, E. Palatka-Moonstone Rd.; conc. and brick, 142x20 ft., with 20-ft. wing, 20x70-ft. bldg. for laundry, lavatories and showers; use old paving bricks.

Ga., Thomasville—City Council considers erecting auditorium.

Ky., Louisville—Board of Park Comms. erect \$25,000 fireproof golf clubhouse, Shawnee golf course; contract let; also approved plans for reconstructing dwelling, Chickasaw Park, for gymnasium for negroes.

La., New Orleans—City Comsn. Council receives bids Feb. 11 for 3 elect. passenger elevators and sprinkler system for \$2,000,000 municipal auditorium; general bids same date; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg.; Sam Stone, Jr., & Co., Conslt. Archts., Masonic Temple Bldg.; Leigh Carroll, Chmn., Auditorium Comsn. 1-10

Mo., Montgomery—Montgomery County Grand Jury, Wm. C. Hughes, Circuit Judge, recommended remodeling and enlarging courthouse and jail.

La., New Orleans—J. V. & R. T. Burkes, N. O. Bank Bldg., New Orleans, and Fleisher Engineering & Construction Co., 410 N. Michigan Blvd., Chicago, Ill., additional bidders on \$1,750,000 criminal courts and parish prison bldg., bids Feb. 19 by City Comsn. Council; Diboll & Owen, Ltd., Archts., Canal Bk. Bldg., New Orleans. 1-31

Miss., Clarksdale—City votes Feb. 26 on \$30,000 bonds for addition to Carnegie Library. Address City Council. 1-24

N. C., Charlotte—City Comsn., Julian H. Little, Chmn., Finance Comn., has low bid at \$163,500 from Brown-Harry Co., E. Main St., Gastonia, for armory; M. R. Marsh, Archt., Builders Bldg. 1-17

Okla., Newkirk—Kay County Bd. of Comms. plan fireproof county home.

Tenn., Knoxville—Knox County Court erect \$145,000 county poor asylum, Maloneyville; fireproof, 1 story, tile roof; Manley & Young, Archts., 302 W. Church St.; plans not started. 1-24

Tenn., Knoxville—City Council, Mr. Bass, City Mgr., plans 3 fire stations, 2 branch libraries and \$100,000 jail; probably be financed out of 1929 \$200,000 permanent improvement bond fund.

Tex., Brownsville—City, A. B. Cole, Pastor, reported, plans \$350,000 auditorium; fireproof, 2 stories and basement.

Tex., San Antonio—City, C. M. Chambers, Mayor, having plans drawn by Emmett T. Jackson, Bldrs. Exch. Bldg., for \$60,000 community center and library, Woodlawn Lake; stone and rein. conc., 1 and 2 stories, about 95x145 ft., tile roof. 1-10

Tex., San Antonio—City, C. M. Chambers, Mayor, receives bids Feb. 18 for auditorium, San Pedro Park; \$80,000; Marvin Eickenroht & Bartlett Cocke, Archts., Maverick Bldg.; Beretta-Stiles Co., Inc., Engrs., Natl. Bank of Commerce Bldg. 12-20

Tex., San Antonio—City, C. M. Chambers, Mayor, will restore old Spanish governor's palace; work start within 30 days.

Tex., San Antonio—City, Phil Wright, Fire Commr., receives bids Feb. 11 for fire station No. 13, S. Presa and Hicks Sts.; brick and rein. conc., 2 stories; Phelps & DeWees, Archts., Gunter Bldg.; W. E. Simpson & Co., Conslt. Engrs., Natl. Bk. of Commerce Bldg. 11-15

Va., South Boston—City Council selected Roger B. Davis, 291 W. Main St., Danville, to draw plans for remodeling city hall damaged by fire at \$40,000 loss. 12-13

Dwellings

Ala., Birmingham—W. S. Reynolds, 5408 S. Sixth Ct., erect brick veneer residence, Woodlawn; 1 story, 55x40 ft., comp. roof, hot air heat; Denham & Denham, Archts., Comer Bldg.

Ark., Harrison—Edgar Patton erect Spanish type bungalow, Erie Ave. and N. Willow St.

D. C., Washington—Edw. St. Cyr Barrington, Archt., 1223 New York Ave., drawing plans for Spanish type buildings on estate in northwest section; hollow tile, 1 story; \$175,000.

D. C., Washington—Harry J. Connor has permit for 2 brick and tile dwellings, 1326-30 Kalmia St.; 2 stories; \$18,000.

D. C., Washington—C. P. Grady has permit for 2 brick dwellings, 3806-08 Twenty-second St., N. E.; 2 stories; \$10,000.

D. C., Washington—Gottlot Winkler has permit for \$13,000 residence, 1907 Sixteenth St., S. E.; 2 stories, brick.

D. C., Washington—A. E. Landvoigt, 1412 I St., N. W., has permit for \$10,000 residence, 4827 Thirtieth St., N. W.; 2 stories, brick and tile.

D. C., Washington—Col. H. C. Kramer has permit for \$15,000 residence, 3033 Ellcott St., N. W.; brick and cinder block, 2 stories.

Ga., Atlanta—J. H. Hinds, care Crum & Foster, Inc., 147 Spring St., N. W., reported, plans 2-story and basement residence, Rivers Road, Haynes Manor section.

Ga., Shannon—Southern-Brighton Mills erect 25 operatives' cottages; \$40,000; Townsend Lumber Co., Contr., Anderson, S. C.

La., Lafayette—Henri Bendel, care I. B. Bendel, erect \$250,000 residence.

La., New Orleans—Jack Wood erect \$28,000 residence, Metairie Club Gardens; frame, 2 stories, tile baths, slate roof, steam heat; Lockett & Chachere, Archts., Balter Bldg.; ready for bids about 30 days.

La., New Orleans—Moise S. Cahn, 1507 Jefferson Ave., erect 2-story frame and stucco residence and garage, Versailles Blvd. near S. Claiborne Ave.; tile roof, warm air heat; Weiss, Dreyfous & Seiferth, Archts., Maison Blanche Bldg., receiving sub-bids.

La., New Orleans—John F. Mayer erect 1-story and basement frame bungalow, Broadway St. near Hurst St.; tile roof, warm air heat; Weiss, Dreyfous & Seiferth, Archts., Maison Blanche Bldg., receiving sub-bids.

La., New Orleans—Wm. B. Burkenroad, Jr., 508 Pine St., erect frame Colonial residence, Lowerline and Dominican Sts.; 1 story, slate roof, hot air heat; Weiss, Dreyfous & Seiferth, Archts., Maison Blanche Bldg.

La., New Orleans—F. P. Dufrechou, Archt., Balter Bldg., completed plans for 6 two-story stucco duplexes, Central Ave. near Metairie Ridge; oak floors, tile and comp. roofs, cast stone, sheet metal and tile work; bids Feb. 7.

La., New Orleans—Robt. Walmsley erect brick and stucco residence, Metairie Club Gardens; 2 stories, tile roof; Moise H. Goldstein, Archt., Hibernia Bk. Bldg.

Md., Baltimore—Thomas Construction Co., erect 6 frame dwellings and garages, 3404-14 Ford Ave.; \$15,000.

Md., Baltimore—Harlem Building Co., 2546 Edmondson Ave., erect number group dwellings, tract bounded by Swan Ave., Rokeby Road and Glen Allen Drive.

Md., Baltimore—Maryland Home Building Co., Munsey Bldg., erect 15 dwellings, Parkside Ave. W. of Belair Rd.

Miss., Blue Mountain—Mrs. J. W. Godwin erect brick residence.

Miss., Canton—B. L. Roberts erect \$15,000 conc., tile and stucco residence; Emmett J. Hull, Merch. Bk. Bldg., Jackson.

Miss., Ruleville—A. L. Penticost erect \$10,000 brick veneer residence; Emmett J. Hull, Archt., Merch. Bk. Bldg., Jackson.

Miss., Senatobia—Following erect residences: Mrs. W. G. Callicott, in northern section; Mrs. Lizzie McGee on Panola St.; J. W. Aiken on Panola St.; Mrs. Harper Johnson, Panola St.

N. C., Winston-Salem—John S. Shutt purchased homestead, Country Club Rd. and Harrison St.

Okla., Oklahoma City—K. W. Dawson, Stiles and Eighth Sts., let contract to Muirgrave Construction Co., Cotton Exch. Bldg., for \$25,500 residence, 14th St. and Lincoln Blvd.; brick veneer, 2 stories, 49x53 ft., oak floors, conc. foundation, clay tile roof; Thos. L. Sorey, Archt., Ferrine Bldg. 1-31

Okla., Tulsa—A. M. Bush, 1308 N. Main St., erect \$16,000 residence; stucco and frame, 2 stories, 52x55 ft.; Chas. S. Dilbeck, Archt.

Okla., Tulsa—G. R. Henson, 1860 E. 17th St., erect \$10,000 residence, 2437 Terwilliger Blvd.

Tenn., Memphis—Mrs. H. J. Conrad, 1717 Peach St., erect \$20,000 residence, Perkins Ave. and Walnut Grove Road.

Tenn., Memphis—Wm. C. Schulenburg, 164 Cedar St., erect brick veneer residence, University Blvd.; 1 story and basement, 43x32 ft., oak floors, tile baths, comp. shingle roof, hot water heat; R. B. Spencer, Archt., 456 Garland St.

Tenn., Memphis—Jackson & Dickinson, Lyceum Bldg., considers erecting 5 dwellings, Car Ave. and Rembert St.; 1 story and basement, oak floors, tile baths, comp. shingle roof, hot water heat; \$20,000.

Tex., Brownsville—Ben C. Clark, Archt., drawing plans for \$16,000 hollow tile and stucco Spanish type dwelling; 2 stories, 3 baths, hardwood and tile floors, tile roof, conc. foundation.

Tex., Fort Worth—Fred Scharf, 1327 E. Myrtle St., erect \$10,000 brick veneer residence, 3921 Monticello St.

Tex., Fort Worth—D. F. Steele erect \$10,000 stucco residence, 4567 Meadowbrook St.

Tex., Houston—W. H. Holland erect English type residence, Pine Valley Drive, River Oaks; brick veneer, 2 stories, 9 rooms; Lamar Q. Cato, Archt., Bankers Mortgage Bldg.

Tex., Houston—W. A. Smith, Post-Dispatch Bldg., erect brick veneer residence, Braeswood; 2 stories, 8 rooms; Carl A. Mulvey, Second Natl. Bk. Bldg., completing plans.

Tex., Houston—V. H. McCall, 1104 Missouri St., erect \$16,000 residence, 2221 Rosedale St.; brick veneer, 9 rooms.

Tex., Houston—H. G. Fields, 6400 Harrisburg Road, erect \$10,000 duplex, 1820 McDuffie St.; brick veneer, 10 rooms.

Tex., Houston—O. L. Miller, Harrisburg Road, erect 36 frame cottages, 8302-36 Myrtle St., Harrisburg; 3 rooms; \$18,000.

Tex., Houston—Roy Nichols, First Natl. Bank Bldg., erect residence near Main St. Road and Blue Ridge Road.

Tex., Houston—Addison McElroy, 4407 Greeley St., erect \$75,000 residence and garage, 3219 Reba St., River Oaks; brick veneer, 6 rooms.

Tex., Houston—V. H. McCall, 1104 Missouri St., erect \$16,000 residence and garage, 2221 Rosedale, Riverside Terrace; brick veneer, 9 rooms.

Tex., Houston—F. L. Clarke erect \$10,000 duplex and garage, 2713-15 Truxillo St.; brick veneer, 2 stories, 12 rooms, 2 baths.

Tex., Richmond—Isadore Jacobs erect brick veneer residence.

Tex., San Antonio—Mrs. Collins C. Clemens, care Marvin Eickenroht & Bartlett Cocke, Archts., Maverick Bldg., have plans completed about Feb. 25 for residence, Alamo

Heights; masonry, face brick, 2 stories, 22x85 ft., wood and tile floors, conc. foundation, flat English tile roof; Beretta-Stiles, Inc., Engrs., Natl. Bk. of Commerce Bldg. 1-17

W. Va., Eunice—Chesapeake & Ohio Rwy. Co., W. J. Harahan, Pres., erect 30 miners' dwellings; \$70,000. See Railways.

Government and State

D. C., Washington—Following contractors estimating on \$17,000,000 bldg. for Dept. of Commerce, bids March 27 by Treasury Dept., Jas. A. Wetmore, Act. Supv. Archt.; General constr. (except elevators), Consolidated Engineering Co., 20 E. Franklin St., Baltimore, Md.; Seglin Construction Co., Inc., Walbridge Bldg., Buffalo, N. Y.; Geo. W. Wyne, 2525 Pennsylvania Ave.; English Construction Co.; Geo. A. Fuller Co., Munsey Bldg., all Washington; Turner Construction Co., 1700 Walnut St., Philadelphia, Pa.; estimators on elevators: A. B. See Elevator Co., 52 Vesey St., New York; Otis Elevator Co., 260 Eleventh Ave., New York, and Washington; York & Sawyer, Archts., 100 E. 42nd St., New York; Edw. H. Bennett, Const. Archt., 80 E. Jackson Blvd., Chicago, Ill. 1-31

D. C., Washington—Purchase Section, Bureau of Standards receives bids Feb. 11 for moving struct. steel framing shelter and erect on another site on conc. foundation, and enclosing with rein. conc. walls and roof; 86x37.6 ft. and 25.6 ft. high to eaves; information and details from S. H. Ingberg, Room 286, Industrial Bldg., Bureau of Standards.

Fla., Miami—Dade County Bd. of Commrs., Hugh Peters, Chmn., and Dade County Fair Assn., care Marcus Milan, 1800 N. Miami Ave., having sketches drawn by H. H. Mundy, Archt., 311 N. E. 18th St., for \$100,000 exposition building and armory.

La., Arabi—Commanding Officer, Q. M. Depot, Jeffersonville, Ind., has low bid from Alfred Garrett, Maritime Bldg., New Orleans, La., for brick lodge, Chalmette National Cemetery. 1-17

Md., Chestertown—Maryland National Guard, Milton A. Reckord, Adjt.-Gen., Maryland Trust Bldg., Baltimore, considers erecting \$50,000 armory; brick and stone, 1 and 2 stories.

Okla., Wewoka—L. S. Youngblood erect bldg. to be leased to Government for post office.

Hospitals, Sanitariums, Etc.

Ala., Tuskegee—United States Veterans Bureau, L. H. Tripp, Ch. Constr. Div., Arlington Bldg., Washington, D. C., has low bid at \$18,104 for material and \$5250 for erecting, total \$23,354, grilles at U. S. Veterans Hospital. 1-10

D. C., Washington—District Commrs., Dist. Bldg., have bid at \$8900 from Catlin Co. for lighting fixtures for Gallinger Hospital.

Md., Chestertown—Mrs. Nora C. Maxwell, Worton, Md., interested in Kent and Queen Anne's Hospital; funds not yet available.

Miss., Laurel—State Bldg. Comsn., New State Capitol Bldg., Jackson, receives bids March 7 for brick dairy barn, brick waiting lodge, frame engineer's house, refrigeration plant and refrigerators, 3 tubular type fire escapes and interior and exterior painting for South Charity Hospital; also bids same date for refrigeration plant and refrigerators, laboratory supplies, repairs to X-ray machine, elect. sewing machine, etc., for Matty Hersee Charity Hospital, Meridian; plans from R. C. Springer, Archt., Rosenbaum Bldg., Meridian. 12-13

Miss., Meridian—State Building Comsn., New State Capitol Bldg., Jackson, receives bids March 7 for service bldg., power house, 150-ft. brick stack and 1200-ft. pipe tunnel, East Mississippi State Hospital; service bldg. to contain kitchen, bakery, butcher, vegetable and dairy product room, 7 cold storage rooms; fireproof, rein. conc., common brick, interior tile walls, steel windows, metal screens, build-up comp. roof; power house of rein. conc. to floor line, steel frame, rein. roof slab, steel sash; \$225,000; plans from R. C. Springer, Archt., Rosenbaum Bldg. 11-8

Mo., St. Louis—Jewish Hospital, Aaron Waldheim, Pres. of Bd., will have plans drawn by Graham, Anderson, Probst & White, 806 E. Jackson Blvd., Chicago, Ill., for \$150,000 David Elsemann Hospital for Chronic Invalids and Convalescents. 1-24

Mo., St. Louis—Board of Public Service having plans drawn by L. R. Bowen and A. Osburg, City Hall, for \$1,200,000 hospital for negroes, Park and St. Ange Sts.; Mr. Bowen and H. Updike, Engrs., City Hall.

Okla., Tulsa—Oklahoma Hospital Assn., O. L. Connor, member, erect 200-bed hospital ad-

joining present structure; set-back type; Rush, Endacott & Rush, Archts., Wright Bldg.

Va., Norfolk—Mt. Sinai Hospital, Mrs. Sidney L. Nusbaum, Pres., Woman's Auxiliary, interested in nurses' home.

Hotels and Apartments

Ala., Birmingham—Borders & Lavette Realty Co., 513 N. 21st St., soon let contract for \$50,000, 2-story and basement, 42x76-ft. brick 10-apartment, S. 28th St. and Highland Ave.; Jacob E. Salie, Archt., 1607 Empire Bldg.

Ala., Huntsville—J. Will Yon, Gainesville, Ga., purchased Twickenham Hotel; remodel, new equipment.

Ark., Forrest City—J. A. McAnich and associates, Little Rock, considering erecting 8-story and basement, brick, steel, rein. conc., stone trim hotel and office building, Washington and Hill Sts.; comp. roof, tile and wood floors.

Ark., Harrison—J. W. Bass, Detroit and Harrison, reported, erect 3-story and basement, brick, stone and conc. 12-apartment, N. Vine St. and Erie Ave.; comp. roof.

Fla., Jacksonville—C. W. Travis has permit for \$15,000, 2-story brick veneer apartment, 2926 Post St.

Fla., Miami Beach—Carl Fisher Properties, 846 Lincoln Road, construct conc. swimming pool and frame cabanas at Flamingo Hotel; \$25,000.

Ga., Brunswick—Cloister Hotel, care Alfred W. Jones, Pres., Sea Island Construction & Supply Co., plans 50-room addition to Cloister Hotel on Glynn Isle; rein. conc., tile and stucco.

La., Monroe—E. Solomon has permit for \$18,000, 2-story, 36-room hotel, 6th and Desiard Sts.

Miss., Bude—Homochitto Lumber Co., Brookhaven, erect 2-story, frame, 24-room hotel.

Miss., West Point—A. Dugan, C. C. Clark and F. H. White, interested in erecting \$100,000, 5-story, brick hotel, Commerce and Jordan Sts., for Holt Hotel Co.; 65 rooms, dining room and stores on ground floor; Weiss, Dreyfous & Seifert, Archts., Maison-Blanche Bldg., New Orleans.

Mo., Jefferson City—M. H. Hobbs, 233 E. High St., start work about August on remodeling Madison Hotel; 4 stories, 106x125 ft.; redecorate, new lobby, 2 store rooms, install sprinkler system; L. R. Parrish, Const. Archt., 115½ W. High St. See Want Section—Building Material and Equipment. 1-31

Mo., St. Louis—Mrs. A. Haller, 3843 Minnesota St., erect \$15,000, 2-story, 63x37-ft. brick tenement, 4725-29 S. Broadway; comp. roof, warm air heat; F. Spohrer, Archt., 4214 Neosho St.

Mo., St. Louis—E. J. Hess, Archt., Title Guaranty Bldg., prepared plans for \$55,000, 3-story, brick and terra cotta, 16-apartment, Goodfellow and St. Louis Ave.

N. C., Charlotte—Poplar Apartment Corp. erect \$200,000, 4-story co-operative apartment, 301 W. 10th St.

N. C., Winston-Salem—Winston-Salem Hotel Co. selected W. L. Stoddard, 50 E. 41st St., New York, to prepare plans for \$450,000, 12-story, 60x100 ft., brick, conc. and steel, 150-room addition to Robert E. Lee Hotel. 1-10

Okla., Oklahoma City—Hurley-Park Investment Co., Robert B. Park, V.-P., Roberts Bldg., Tulsa, having plans prepared by N. E. Peters, Orear-Leslie Bldg., Kansas City, Mo., for 15-story, 150-apartment hotel, 13th and Broadway. 1-31

Okla., Tulsa—Mrs. Margaret Bradford, 12 W. 13th St., has permit for \$12,000 apartment, 103 S. Zuni Ave.

Okla., Vinita—W. G. Hutson, Lawrence, Kan., and Mont J. Green, Contr., Manhattan, Kan. erect \$250,000, 5-story 75x150-ft. stone hotel; Albert C. Wiser Archt., Court Arcade Bldg., Tulsa.

Tex., Fort Worth—Weatherford Strett Methodist Church, Rev. D. A. McGuire, Pastor, erect \$150,000, 4-story apartment, E. Belknap and Pecan Sts.; first floor for stores.

Tex., Houston—C. H. Clarke has permit for \$10,000, 2-story, 4-apartment, 302 Saulnier St.

Tex., Houston—J. E. Michels, 4003 Wilmer St., has permit for \$22,000, 2-story, brick veneer, English design, 4-apartment, 1102 Bank St.

Tex., Perryton—J. L. North, Amarillo, and associates, erect 3-story, 35-room hotel.

Miscellaneous

Ala., Ramer—Ramer Civic Club, J. W. Sellers, promoting erection clubhouse.

D. C., Washington—Thomas W. Sidwell, 1809 I St., N. W., has permit for \$10,000, 1-story frame gymnasium, 3825 Wisconsin Ave.

N. C., Wilmington—Frying Pan Power Boat Club, Donald C. King, 210 S. Third St., does not plan to erect clubhouse at present. 1-31

Tenn., Jackson—Chamber of Commerce promoting erection auditorium; Fred Smith directing campaign for \$50,000.

Tex., Donna—Valley Orchards, Inc., care Robt. L. Vogler, Edinburg, has low bid at \$11,974 from L. L. Davis, McAllen, for 2-story, 40x40-ft. frame and stucco clubhouse and residence; tile roof, hardwood floors. 1-10

Tex., Marshall—Dr. Arthur Smith, Lake Bldg., erect clubhouse and residence in connection with development 65-acre development. See Want Section—Building Material and Equipment.

Va., Stratford—Mrs. Charles D. Lanier, Pres., William Alexander Jr. Chapter, United Daughters of Confederacy, 151 Lake Ave., and Miss Ethel Armes, both Greenwich, Conn., purchased Stratford Hall, birthplace of General Robert E. Lee, to be held in trust pending formation Robert E. Lee Memorial Foundation, Inc., which will complete purchase, restore and furnish and dedicate as national shrine during 1929; Edw. W. Donn, Jr., 1920 K St., N. W., Washington, D. C., selected as architect.

Railway Stations, Sheds, Etc.

Fla., Williston—Seaboard Air Line Rwy., W. D. Faucette, Ch. Engr., Norfolk, Va., erect depot on Church St.; provide packing shed, loading tracks, lower tracks to street level; work under supervision of H. O. Kaigler, Asst. Div. Engr. 5-3

Ky., Paintsville—Chesapeake & Ohio Rwy. Co., C. W. Johns, Ch. Engr., Richmond, Va., \$71,400 passenger depot. See Railways. 3-8

Tenn., Chattanooga—Southern Railway System, G. L. Sitton, Ch. Engr., M. W. & Struc., Lines East, Charlotte, N. C., construct \$50,000 unloading platform; 20-ton capacity.

Va., Covington—Chesapeake & Ohio Rwy. Co., C. W. Johns, Ch. Engr., Richmond, Va., soon start work on freight house; provide tracks, etc.; \$97,500. See Railways.

Schools

Ala., Daleville—Dale County Bd. of Education, Ozark, erect junior high schools at Daleville and Newton; \$20,000 each.

Ala., Montgomery—Bd. of Education, W. R. Harrison, Supt., Shepherd Bldg., receives bids Feb. 11 (extended date) for \$200,000, 2-story and basement, rein. conc., brick, stone trim Jr. High School; tar and gravel roof, conc. and terrazzo floors, steam heat; Frederick Ausfeld, Archt., Shepherd Bldg. 1-31

Ala., Opelika—Following contractors estimating on 1-story and basement, 239x67 ft., brick South Side School and 1-story and basement, 245x54 ft., brick North Side School, bids Feb. 14: Grahm Construction Co., Red Rock Bldg., Atlanta, Ga.; Williams Lumber Co., 13th St.; Ewart Brothers, Pine St., both Columbus, Ga.; Batson-Cook Co., West Point Iron Works, both West Point, Ga.; J. M. Culpepper & Sons, Pelham; Brumlow Construction Co., Dalton, Ga.; Jno. T. Ragan Co., Vidalia, Ga.; Daniel Lumber Co., La Grange, Ga.; A. C. Samford, Shepherd Bldg., Montgomery; Snelling Lumber Co., Phenix City; A. J. Honeycutt Co., 2408 15th Ave., N., Birmingham; Walter Strother, Dadeville; M. D. Morgan Co., Opelika Lumber and Construction Co., both Opelika; Lockwood & Poundstone, Archts.; Edw. F. Billie, Asso. Archt., both Forsyth Bldg., Atlanta. 1-24

Ala., Tuscaloosa—University of Alabama, Dr. George H. Denny, Pres., receives bids March 6 for rein. conc. stadium; plans from Atwood & Nash, Inc., Archts.-Engrs., Chapel Hill, N. C. 1-24

Ark., Heth—Heth Special School Dist. No. 43, A. A. Pennington, Pres., has low bid at \$22,611 from Wallin Dickey Lumber Co., Earl, Ark., for 1-story and basement brick veneer school; comp. roof, pine floors, stone trim; Estes W. Mann, Archt., Cotton Exchange Bldg., Memphis, Tenn. 12-27

Ark., Little Rock—Mount St. Mary's Academy, Sisters of Mercy, care Mother Fedells, soon ready for bids \$100,000, 1-story brick auditorium and gymnasium; slate roof, wood and tile floors, steam heat, seating capacity

1000; Henry P. Hess, Archt., 1001 Ambassador Bldg., St. Louis. 12-13

Fla., Apalachicola—Franklin County Bd. of Education selected E. R. James, 590 Floral Ave., Bartow, to prepare plans for \$40,000 grammar school; brick, stone trim, fireproof.

Fla., Carrabelle—Franklin County Bd. of Education, Apalachicola, erect \$50,000 grammar school; brick, stone trim, fireproof; S. J. Welch, Archt., Brent Bldg., Pensacola.

Fla., Coral Gables, Miami—Dade County Bd. of Public Instruction, Miami, erect \$70,000, 9-classroom building at Ponce de Leon High School; Charles M. Fisher, Supt. of Schools.

Fla., Gainesville—University of Florida plans stadium to seat 20,000 people.

Fla., Orlando—Cathedral School for Girls plans \$200,000, 2-story, hollow tile and stucco building; tile roof; H. M. Reynolds, Archt., 423 S. Orange St.

Fla., Latana—Palm Beach County Bd. of Public Instruction, West Palm Beach, has low bid at \$16,400 from DeCamara Chace Construction Co., Palm Beach, for 4-room tile and stucco elementary school; Wm. Manley King, Archt., Harvey Bldg., West Palm Beach. 1-17

Fla., Tampa—Hillsborough County Bd. of Public Instruction soon call for bids for \$15,000 brick and stone school auditorium at Springhead.

Fla., Wewahitchka—Gulf County Bd. of Public Instruction, B. W. Spear, Supt., has low bid from A. D. Lawson, Port St. Joe, for \$20,000, 1-story, 4-classroom school; Biggers & Glass, Archts., 302 Franklin St., Tampa.

Ga., Atlanta—Chi Psi Fraternity, Georgia School of Technology, Wm. A. Fuller, Chmn., Bldg. Comm., Healey Bldg., erect \$35,000, 2-story and basement, brick veneer frat house; comp. roof, hardwood and tile floors, stone trim, steam heat; Pringle & Smith, Archts., Norris Bldg.

Ky., Lexington—University of Kentucky, Dr. Frank L. McVey, Pres., erect office and dairy manufacturing building; Frankel & Curtis, Archts., Hernando Bldg.; bids in.

Ky., Mays Lick—Mays Lick Consolidated School Dist. voted \$50,000 bonds for gymnasium and auditorium. Address Dist. School Trustees.

La., Baton Rouge—Sacred Heart School Mission ready for bids in about two weeks for \$40,000, 2-story, brick and stone trim, 12-classroom elementary school; Wm. T. Nolan, Archt., Canal Bank Bldg., New Orleans.

La., Baton Rouge—Following general contractors estimating on two \$90,000, 2-story, rein. conc., brick, cast stone trim dormitories at State School for Deaf, bids opened Feb. 19 at New Orleans. W. T. Nolan, Archt., Canal Bk. Bldg., New Orleans: A. C. Stewart, 810 E. Boulevard; The Burkes Co.; L. W. Eaton, 1601 North Boulevard, all Baton Rouge; E. E. Rabelais & Son, Bunkie; P. Olivier & Son, 114 Bilbo St., Lake Charles; Sandquist & Snow, and Tudor & Ratcliff, Alexandria; A. Garrett, Maritine Bldg.; W. J. Quick, Pere Marquette Bldg.; Underwood Contracting Co., Louisiana St., all New Orleans; plumbing and heating—Brasher & Rambach, 227 Laurel St., and Craft Rushworth Co., 1449 Florida St., Baton Rouge; C. A. Hunter, Alexandria; S. S. Richard, Franklin; L. M. Harper, Pineville; American Heating & Plumbing Co., 829 Baronne St., and H. N. Moody, 815 Perdido St., New Orleans. Lately noted to open bids Feb. 6. 1-24

La., Lafayette—Following contractors estimating on \$70,000, 2-story and basement, brick addition and alterations to Martin Hall, Southwestern Louisiana University, bids Feb. 19. Favrot & Livaudais, Archts., Hibernia Bank Bldg., New Orleans; Gervais F. Favrot, Balter Bldg.; W. J. Quick, Pere Marquette Bldg.; Caldwell Bros., 816 Howard Ave., all New Orleans; P. Olivier & Son, 114 Bilbo St.; Knapp & East, Kaufman Bldg., both Lake Charles; Sandquist & Snow of Louisiana, Inc.; Tudor & Ratcliff; R. L. Roland, all Alexandria; A. C. Stewart, Baton Rouge. 1-31

La., Scotland—Following contractors estimating on \$90,000 2-story and basement dormitory at Southern University, bids Feb. 19. Favrot & Livaudais, Archts., Hibernia Bank Bldg., New Orleans; W. J. Quick, Pere Marquette Bldg.; Gervais F. Favrot, Balter Bldg.; Caldwell Bros., 816 Howard Ave., all New Orleans; P. Olivier & Son, 114 Bilbo St.; Knapp & East, Kaufman Bldg., both Lake Charles; Sandquist & Snow of Louisiana, Inc.; Tudor & Ratcliff; R. L. Roland, all Alexandria; L. W. Eaton, 1601 N. Boulevard; A. C. Stewart; The Burkes Co., all Baton Rouge. 1-31

Miss., Clarksdale—City votes Feb. 26 on \$250,000 bonds for Jr. High School; P. J. Krouse, Archt., M. & W. Bldg., Meridian. 1-24

Mo., Hendrickson—Bd. of Education erect high school to replace burned structure.

Mo., Smithton—Bd. of Education erect \$37,000, 1-story, brick grade and high school to replace structure recently burned; \$25,000 bonds; Owen, Saylor & Payson, Archts., Interstate Bldg., Kansas City.

Mo., St. Joseph—St. Mary's R. C. Church, Rev. J. B. Brady, having plans prepared by E. Gray Powell, 1122 Powell St., fr \$75,000, 2-story school, 2nd and Cherry Sts.

Mo., Walnut Grove—Bd. of Education, L. C. Stanton, Supt., having plans prepared by Heckenlively & Marks, Landers Bldg., Springfield, for \$40,000, 2-story, brick grade and high school to replace burned structure. 11-15

N. C., Greenville—Bd. of Education, J. H. Rose, Supt., erect school to replace structure destroyed by fire.

Tenn., Trezevant—Bd. of Education plans high school to replace structure burned at loss \$30,000.

Tex., Austin—University of Texas, C. D. Simmons, Sec., Bd. of Regents, having plans prepared by Herbert M. Greene & Co., 301 Construction Industries Bldg., Dallas, for \$450,000 gymnasium and 7 dormitories to cost \$1,500,000. 1-31

Tex., Brady—School Bd., W. I. Brogden, Sec., let contract to Thomas-Sable Construction Co., 1320 Masonic St., Dallas, for \$135,000, 2-story, brick, rein. conc. high school; heating, \$9364, plumbing, \$5500, A. A. Ellis, San Angelo; Henry T. Phelps, Archt., Hicks Bldg.; W. E. Simpson Co., Engr., Natl. Bk. of Commerce Bldg., both San Antonio. 1-10

Tex., Dallas—Dallas business leaders started campaign to raise \$1,000,000 for Baylor University Medical College.

Tex., Denton—College of Industrial Arts erect \$50,000 hospital.

Tex., Iraan—Bd. of Education, J. H. Lundy, Supt., erect \$60,000 high school.

Tex., Navasota—City considering vote on \$150,000 bonds to erect school. Address Bd. of Education.

Tex., Portland—School Bd. having plans prepared by Hamon & Co., City Natl. Bk. Bldg., Corpus Christi, for stucco and tile, 4-classroom school; election Feb. 9 on \$15,000 bonds. 1-24

Tex., San Antonio—School Bd., Frank Haines, Pres., erect two 1-story frame schools; Phelps & Dewees, Archts., Gunter Bldg.; bids in.

Tex., San Juan—Parr-San Juan-Alamo Ind. School Dist., A. A. Kelly, Pres., erect 1-story, brick and hollow tile, 10-room school; Robt. L. Vogler, Archt., Edinburg.

Va., Blacksburg—Virginia Polytechnic Institute, Dr. Julian A. Burruss, Pres., ready for bids about Feb. 15 for \$25,000 addition to infirmary.

Stores

Ark., Little Rock—Quapaw Investment Co., John F. Boyle, Pres., Boyle Bldg., erect 2-story, 150x100-ft., fireproof store and office, Capitol Ave. and Center St.

Ark., Ola—Dan Mathews having plans prepared for brick store, Main St. and 4th Ave.

Ark., Ola—C. W. Mks erect brick building on Main St.

D. C., Washington—The Hecht Company, 618 F St., purchased Owen Bldg., 620-22 F St., and remodel.

D. C., Washington—Dulin & Martin, 1216 G St., N. W., reported, erect \$200,000, 4-story brick store to replace burned structure.

D. C., Washington—Allan J. McLaughlin has permit for \$18,000, conc. and stucco building, 2510 Upton St., N. W.

Ga., Atlanta—M. H. Elder Machinery Co., 655 Whitehall St., S. W., erect \$50,000, 2-story and basement, 65x80-ft. brick store and warehouse; tar and gravel roof; Daniell & Beutell, Archts., Healey Bldg.

Ga., Atlanta—Singer Sewing Machine Co., W. H. Clough, Real Estate Dept., Singer Bldg., New York, has low bid at \$56,990 from J. S. McCauley Co., Bona Allen Bldg., Atlanta, for 3-story and basement, 100x21 ft., rein. conc. and brick, stone trim building, Peachtree and Cain Sts., N. E.; Hentz, Adler & Schutze, Archts., Candler Bldg.; Robert S. Fiske, Engr., Healey Bldg., both Atlanta. 1-31

Ky., Louisville—Sales Furniture Co., Alfred M. Sales, Pres., 307-09 W. Market St., purchased 4-story building, 142-44 S. Third St., adjoining; remodel for annex to store.

La., New Orleans—Pan-American Petroleum Corp., Masonic Temple Bldg., erect 1-story, 52x36 ft., rein. conc. and brick store, St. Charles Ave. and Felicity St.; built-up comp. roof; bids in.

La., Shreveport—W. H. Dominick having plans prepared by E. A. George for \$75,000, 2-story brick building, Louisiana Ave. and Springhill St. 12-6

Md., Baltimore—Central Savings Bank of Baltimore remodel 4-story building, 113 N. Charles St., to be leased to Geko Company, subsidiary of George F. Keith Co., Campello, Mass., operating local Walkover Shoe stores; \$15,000 to \$20,000; install new front, interior alterations.

Miss., Columbia—B. B. Bradley, Propr., Columbia Variety Store, soon let contract for 30x80 ft., brick store.

N. C., Durham—Gilbert C. White, 406 1/2 W. Main St., soon start work on \$21,000, 2-story, brick building on W. Main St. to be occupied by Lazarus, Fried & Sons, New York, as shoe store; second floor leased to Home Mortgage Co.

Okla., Oklahoma City—Sneed Furniture Co. erect \$30,000, 2-story, brick and steel store and office building; comp. roof; Thos. L. Sorey, Archt., Braniff Bldg.

Okla., Seminole—J. D. Campbell soon let contract for \$12,000, 2-story, brick store.

Okla., Tulsa—Fred Johnson has permit for \$10,000 store.

S. C., Gaffney—Gaffney Manufacturing Co. erect 40x80-ft. brick store on Railroad Ave.

Tenn., Knoxville—Hope Brothers remodel building for store.

Tex., Amarillo—Charles L. Green Estate, 112 E. Seventh St., erect 1-story brick building, 8th and Polk Sts., to be occupied by Mrs. Clellie Tackett as ladies' ready-to-wear shop and Sam Zukav as confectionery store.

Tex., Big Springs—W. R. Settles erect brick building.

Tex., Corpus Christi—Cohen & Sheinberg erect 1-story, 21x85 ft., brick and tile store on Leopard St.; Hardy & Curran, Archts., Nixon Bldg.

Tex., Fort Worth—Beacon Shoe Store, L. E. Langston, Dist. Mgr., 1912 Main St., expend \$40,000 to \$50,000 for remodeling buildings.

Tex., San Antonio—J. C. Penney Co., W. C. Johnson, Local Mgr., S. Alamo and Commerce Sts., remodel 4-story building; \$60,000; plans by Penney Engineering Dept., 330 W. 34th St., New York; bids in. 12-27

Tex., San Benito—Frank T. Phillips erect 1-story, 50x100-ft. brick or hollow tile building, Sam Houston and Heywood Sts., to be leased to Rio Grande Hardware & Machinery Co.

Va., Portsmouth—W. T. Eastwood rebuild 5-story building, 115 High St.

Va., Hopewell—M. C. Cornez erect \$60,000, 2-story, 100x100 ft., struct. steel and brick store and apartment on Broadway; cement slab and wood floors, built-up roof; C. K. Baylis, Archt., 206 Goodman Bldg. 1-24

Theaters

Ark., Ola—W. F. Thompson erect 40x80 ft. theater on Main St.

Md., Laurel—Sidney B. Lust, Mather Bldg., Washington, D. C., reported, erect \$70,000, Spanish type motion picture theater; seating capacity 1000, 4 stores on ground floor.

Miss., Blue Mountain—E. L. Goodwin erect brick moving picture theater.

Miss., Columbus—James W. Carr and H. M. Owen remodel McCahey Bldg. for theater.

Mo., Fayette—Dozier Stone, Columbia, having plans prepared by Boller Bros., 114 W. Tenth St., Kansas City, for 1-story stucco and brick theater.

Okla., Ardmore—Little Theater leased old building of St. Phillips Episcopal Church; remodel and erect addition for theater.

Warehouses

Fla., Pensacola—Louisville and Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., plans soon start work on \$250,000, 102x402 ft., brick and steel warehouse at City Docks; 1250 carloads capacity. 10-11

Mo., Kansas City—Dierks & Sons Lumber Co., 1901 Woodland St., erect 25x125-ft. brick display and office building and 128x210-ft. lumber sheds.

N. C., Charlotte—Carolina Rim and Wheel Co., 207 N. Graham St., has permit for \$19,000, 1-story, brick office and warehouse.

S. C., Spartanburg—Draper Corp., Hope-dale, Mass., receives bids Feb. 12 for 2-story, 264x105 ft., brick, steel frame, stone trim warehouse and 10 cottages for operatives; former built-up roof, 2 elevators, sprinkler system, 50,000 sq. ft. floor space; J. E. Sir-

rine & Co., Engrs., Greenville.

11-29

Va., Danville—Danville Warehouse Co., John L. Tucker, Pres., First Natl. Bank Bldg., rebuild Accre's Warehouse and probably erect 10 stores on Craighead St. to replace structures burned at loss of \$100,000.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Tex., Beaumont—Enochs Lumber & Manufacturing Co. has millwork contract for \$400,000 Y. M. C. A. building; Tisdale, Stone & Pinson, Archts., Goodhue Bldg., Beaumont, and Independent Life Bldg., Nashville, Tenn.; Christy-Dolph Construction Co., Contr., Goodhue Bldg., Beaumont. 12-6

Bank and Office

Ala., Anniston—R. P. Wheeler let contract to Ogletree Construction Co., Anniston, for stone and stucco residence; 2 stories and basement, hardwood floors, tile bath, slate roof, steam heat; R. Kennon Perry, Archt., Wynne-Claughton Bldg., Atlanta, Ga.

La., Baton Rouge—Lafayette Realty Co. let contract at \$220,000 to Stewart & McGehee Construction Co., Kahn Bldg., Little Rock, Ark., for Medical Arts Bldg.; fireproof, steel, brick, stone trim, 9 stories; garage; running ice water; Edw. F. Neild, Archt., City Bank Bldg., Shreveport, La. 1-24

Miss., Jackson—Plaza Realty Co., J. B. Stirling, Pres., 600 N. State St., let excavation contract for \$600,000 office bldg., Congress and Amite Sts., to Nixon & Phillips; 12 stories; N. W. Overstreet, Archt., Miss. Fire Bldg.

N. C., Charlotte—Standard Oil Co., 907 W. First St., erect \$45,000 addition to office, First and Clarkson Sts.; 1 story; J. A. Jones Construction Co., Contr., Commercial Bank Bldg.

Tex., Brownsville—First National Bank erect brick and terra cotta addition; 2 stories, 35x43 ft., conc. foundation; Ben C. Clark, Archt.; W. A. Velton, Contr., both Brownsville; fixtures, exclusive of vault, Lane & Tweed, City Bk. Bldg., Kansas City, Mo.

Tex., San Angelo—C. C. McBurnett, St. Angelus Hotel, let contract at \$134,000 to Robt. E. McKee, 1918 Texas St., El Paso, for office building, Beauregard and Irvin Sts.; fireproof, brick, tile, rein. conc. and artificial stone, 6 stories and basement, 1-story store adjoining, 50x100 ft., terrazzo, conc., tile and granite floors, Barrett Specification roof, metal doors and windows, metal lath and plaster, marble, weatherstrips, revolving doors, 12-ft. foundation; masonry, A. A. James, P. O. Box 861, San Angelo; Anton F. Korn, Archt., Thomas Bldg., Dallas; B. M. Morgan, Asso. Archt., San Angelo Natl. Bank Bldg., San Angelo. 1-31

Churches

Ala., Birmingham—McCoy Memorial Church, Eighth Ave. and Eighth St., West, erect \$65,000 steel and brick bldg.; 1 story, slate roof; Day & Sachs, Contrs., 2400 Avenue E.

Ark., Pine Bluff—Central Presbyterian Church, Rev. John D. Spragins, Jr., Pastor, has plans completed by Mitchell Seligman, Archt., 206 Pine St., for \$18,000 brick and stone Sunday school; conc. and wood floors, 2 stories and basement. 10-11

D. C., Washington—Protestant Episcopal Cathedral Foundation erecting \$150,000 school for boys, Massachusetts and Wisconsin Aves., N. W.; struct. steel, rein. conc., rubble and cut stone, 4 stories, 130x81 ft., granolithic floors, slate roof; furnishings, equipment, etc., \$25,000; Cram & Ferguson, Archts., 248 Bolyiston St., Boston, Mass.; Chas. H. Tompkins Co., Contr., 1608 K St., Northwest; material and supplies purchased. 1-24

Fla., New Myrna—Baptist Church let contract to D. F. Douglas for building; tan and brown brick, 50x108 ft., 2 auditoriums, 36 classrooms. 10-25

Ga., Macon—Mount Olive Baptist Church remodel and erect addition to building; brick and frame, 6 classrooms, dining room, kitchen and furnace room; Mangham Construction Co., Contr.

La., Crowley—First Presbyterian Church let contract at \$64,350 to E. E. Rabalais, Bunkle, for brick and stone trim church and Sunday school; 2 stories, rein. conc. foundation, wood floors, slate roof, low pressure heating; Wm. T. Nolan, Archt., Canal Bank Bldg., New Orleans. 9-6

Miss., Sarthage—Baptist Church let contract to G. F. Hays & Sons, Union, for 1-story brick building; auditorium, assembly

hall, classrooms; Emmett J. Hull, Archt., Merch. Bank Bldg., Jackson. 7-26

Mo., St. Louis—Grace M. E. Church, 6199 Waterman St., remodel bldg.; \$10,000; Noite & Nauman, Archts., Fullerton Bldg.; G. F. Bergfeld, Contr., 610 Chestnut St.

S. C., Anderson—First Baptist Church let contract at \$38,958 to C. M. Guest & Son for Sunday school annex; 3 stories, 57x112 ft.; Chas. W. Fant, Archt. 7-26

Tex., Garland—First Presbyterian Church, Rev. J. N. Russell, Pastor, erect \$20,000 building; brick veneer, 2 stories; A. Quesenberry, Contr.

Tex., Houston—Church of the Nazarene, Rev. J. Erben Moore, Pastor, let contract to Leon Osborn, 2316 Oakdale St., for \$60,000 building, 46 Waugh Drive; 2 stories and basement, 82x183 ft.; basement completed; Thiel & Maddrey, Archts., Esperson Bldg.

Va., Richmond—First Church of Christ, Scientist, let contract to K. L. Black & Co., Inc., 1314 Grayland Ave., to excavate for bldg., Monument Ave. and Allison St.; Marcellus E. Wright, Archt., American Natl. Bk. Bldg.; general bids Jan. 31.

City and County

Ala., Tusculumbia—Colbert County Bd. of Commrs. let contract to Pauly Jail Building Co., St. Louis, Mo., to remodel jail. 12-6

La., Shreveport—McCoun Tile & Marble Co., 1121 Prospect St., has tile and marble contract at \$2650 for \$500,000 municipal auditorium; millwork, Rogers Lumber Co., at \$10,662; Jones, Roessle, Olschner & Weiner, Archts., Ardis Bldg.; Seymour Van Os, Asso. Archt., Merchants Bk. Bldg.; Glas-sell-Wilson Co., Contr., 501 Texas St. 1-24

Tenn., Rogersville—Hawkins County Court, Geo. H. Campbell, Chmn., having plans drawn by Allen N. Dryden, Archt., Kingsport, to remodel courthouse; conc. foundation, brick, 2 stories and basement, metal roof, steam heat; probably call for bids about March 1. 1-17

Va., Richmond—Richmond Public Library about completed excavation for \$275,000 Dooley Memorial Library, First and Franklin Sts.; fireproof, faced on 4 sides with Aquia stone, 3 stories, 100x125x40 ft., marble and linoleum floors, conc. foundation; Baskerville & Lambert, Archts., Travelers Bldg.; J. R. Jones & Conquest, Inc., Contr., 1001 E. Main St.; following sub-contracts let: Stone, George Washington Stone Co., Alexandria; masonry, Duke, Carter & Page; iron and steel, Richmond Structural Steel Co.; plumbing and vacuum cleaner, W. G. Winter, State-Planters Bk. Bldg.; roofing, Burton Metal-craft Co., 2415 W. Main St.; glazing and steel sash, Sash, Door & Glass Corp., Sixth and Stricker Sts.; millwork, R. E. Richardson & Sons, 2100 Westwood Ave.; Venetian blinds, Terrell & Fry, Mutual Bldg.; plastering, Hickman Plastering Co.; painting, Faulconer & Wynn, 1105 N. 21st St.; wiring, Stringer Electric Co., 517 E. Main St. 1-17

Dwellings

Ala., Birmingham—G. C. Lockhart, 1201 S. 22nd St., let contract to Paul Bros., Holly-wood, for \$25,000 residence and garage, Forrest Park; brick and stone, 2 stories; J. F. Surman, Archt., Comer Bldg. 1-10

Ala., Birmingham—Wm. Richardson, Jr., 1737 Jefferson Ave., erect \$20,000 residence, 2738 Bush Blvd.; brick veneer, 2 stories; Herron & Tillia, Contrs., 406 N. 23rd St.

Ala., Montgomery—J. W. Tullis, LeGrand Place, erect \$10,000 residence, Allendale Rd.; brick, 1 story; T. A. Powell, Contr., 643 Carter Hill Rd.

Ark., Camden—M. L. Hall started work on brick veneer residence, N. Agee St., Park-view; 1 story, 5 rooms, oak floors, comp. shingle roof, tile bath; M. M. Minter, Contr.

Ark., Fordyce—W. S. Alexander erect brick veneer residence; 1 story, oak floors, comp. shingle roof, tile bath; Elmer McMurray, Contr.

Ark., Little Rock—Wallace Townsend, Boyle Bldg., erect \$13,000 residence, 2206 N. Palm St.; I. B. Davis, Contr., 2412 Schiller St.

D. C., Washington—L. E. Breuninger & Sons, Colorado Bldg., have permit for \$10,000

dwelling, 1341 Hemlock St.; 2 stories, brick, 23 x 30.6 ft., hardwood floors, slate roof; H. L. Breuninger, Archt.

D. C., Washington—Boss & Phelps, 1417 K St., N. W., erect 11 brick dwellings, 1600-20 Forty-fourth St., N. W.; 3 stories; \$95, 000; owners build.

D. C., Washington—Chas. D. Sager, 3024 Wisconsin Ave., N. W., has permit for 7 brick dwellings, 2401-13 E St., N. E.; 2 stories; \$30,000; owner builds.

D. C., Washington—W. C. & A. N. Miller, 1119 17th St., N. W., have permit for 2 dwellings, 4831 Indian Lane and 4355 Kling-ble Rd.; stone and brick, 2 and 3 stories; \$35,000; owners build.

Fla., Kissimmee—Frank O. King let contract to A. E. Slauson, 57 W. Colonial St., Orlando, for residence, Lago Vista; 1 story, 36x100 ft.; laying foundation.

Fla., Miami Beach—J. L. Sibley, 3000 Prairie Ave., erect \$17,000 residence, Pine Tree Drive; Lee L. Wade, Archt., Exchange Bldg., Miami; owner builds.

Fla., South Jacksonville, Jacksonville—B. N. Inman, 236 Sorrento, erect 2 two-story dwellings and 6-room bungalow, Shadyside; fireproof, brick; \$29,500; A. N. Burkholder, Contr.

Fla., St. Petersburg—John H. Bull, First Natl. Bank Bldg., has contract for \$37,500 dwelling, garage and servants' quarters; hollow tile and stucco, 1 and 2 stories, hardwood, linoleum, rubber tile and tile floors, steel sash, 3 tile baths, steam heat.

Ga., Atlanta—F. P. & Geo. J. Morris, 76 Pryor St., N. E., erect dwellings, 1604 S. W. Stokes Ave., 50 Douglas St. and 657 Gresham Ave.; brick veneer, hardwood floors, tile baths, comp. roofs; \$20,000; owners build.

Ga., Atlanta—Grady Walker, care Walker Supply Co., 60 Spring St., S. W., erect \$12,000 residence, 608 Pelham Road, N. E.; brick veneer, 2 stories; Thos. K. Windham, Inc., Contr., 629 Spring St., N. W.

Ga., Atlanta—H. Kuniansky, Healey Bldg., erect 2 brick veneer dwellings, 526 Lakeshore Drive, N. E., and 731 Greenwood Ave., N. E.; 1 story, 6 rooms and bath, hardwood and tile floors, comp. roof, hot air heat; \$14,000; owner builds.

La., New Orleans—W. W. Desemar, Contr., 2714 Holly Grove St., erect 3 double dwellings, Holly Grove and Belfast Sts.

Md., Baltimore—Nellie and Elsie Orcutt, Canterbury Apt., erect \$10,000 residence and garage, 13 W. Cold Spring Lane; brick, 2½ stories, 45.2x43.2 ft., slate roof, hot water heat; C. K. Wells, Archt.-Contr., 3535 Ready Ave.

Md., Baltimore—Frank Novak Realty Co. erect 85 brick dwellings, 3300 and 3400 blocks Dudley St.; 2 stories, about 15x42 ft., hot water heat; \$310,000; G. F. Smithson, Archt.; owner builds.

Md., Baltimore—Chas. Watkins, care Va. Trust Co., Richmond, Va., erect \$60,000 residence; stone, 2½ stories; Lawrence Hall Fowler, Archt., 347 N. Charles St.; L. L. Chambers, Contr., 36th St. and Roland Ave., both Baltimore.

Md., Baltimore—John Bloetcher erect 2 brick dwellings and garages, 3201-03 Sequoia Ave.; 2 stories, 26x30 ft. and 18x18 ft., slate roofs; \$10,000; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—Ralph W. Simmers, Har-ford and Southern Ave., erect 18 brick dwellings, 3002-24 Beverly Road; 2 stories, 22x39 ft. and 16x43 ft., tin roofs, hot water heat; \$36,000.

Md., Baltimore—Chas. R. Durling, 51 S. Gay St., erect \$19,000 Georgian type residence, St. Dunstan's Road, Homeland; 12 rooms, 5 baths; J. Winthrop Walcott, Archt.; Alex. Schatke, Contr.

Md., Baltimore—Fulton E. Yewell erect \$15,000 dwelling, 111 Witherspoon Road; stone, 2½ stories, 39.8x27.6 ft., slate roof, hot water heat; Lewis & Westenhaver, Archts., 20 E. Lexington St.; owner builds.

Miss., Meridian—F. W. Kahlmas, 1100 26th Ave., erect \$12,500 duplex, Poplar Spring Drive near 25th St.; brick and conc. block; Williams & Cleveland, Contrs. 1-31

Mo., St. Louis—Wallace M. Smith, Bldr., 4555 Queens St., started work on English type dwelling, Glen Echo Drive, Bel-Nor; 7 rooms.

Okla., Enid—D. W. Cotton let contract to V. M. Peterson for \$45,000 brick and conc. residence; 2 stories, oak floors, walnut finish, tile or comp. roof, steam heat; Clarence E. Shepard, Archt., Huntzinger Bldg.; Harry L. Wagner, Asso. Archt., both Kansas City, Mo. 11-29

Okla., Houston—L. E. Brazelton, 4304 Montrose St., started work on number dwellings, Chevy Chase; \$63,000.

S. C., Edgefield—Kendall Mills, Inc., T. A. Hightower, Mgr., let contract for 49 dwellings, Addison Mills, to Townsend Lumber Co., Anderson; baths, hot and cold water; brick; also plan church. 1-31

Tenn., Knoxville—Mynderse-Carringer Co., 615 Market St., erecting dwelling, East Knoxville; 12 completed; 48 to be erected; sell from \$2500 to \$3500 each. 1-31

Tenn., Knoxville—Lucien Bailey, care Caldwell & Co., let contract to Weaver & McGill, General Bldg., for \$20,000 Colonial residence, Scenic Drive; Barber & McMurry, Archts.; Chas. Lester, Landscape Archt., both General Bldg. 1-3

Tenn., Knoxville—J. W. Dean, 1719 Lake Ave., erecting residence, Tops.de. 1-3

Tenn., Knoxville—Will F. Akers, Mercantile Bldg., let contract to S. D. Cox & Co., Market and Church Sts., for \$18,000 brick veneer residence; 2 stories, 68x49 ft., clear red oak floors, slate roof, brick and conc. foundation; Albert E. Gredig, Archt., Mercantile Bldg. See Want Section—Building Material and Equipment. 1-17

Tenn., Memphis—Foster & Stevenson, First Natl. Bank Bldg., erect English type bungalow, McLean Blvd. and Jackson Ave., Colonial Gardens; 2 baths; Estes W. Mann, Archt., Cotton Exch. Bldg.; owners build. 1-17

Tex., Beeville—Dr. L. N. Connally has low bid at \$19,000 from W. C. Stephenson, Beeville, for residence; Malcolm G. Simons, Archt., Bldrs. Exch. Bldg., San Antonio. 1-24

Tex., Houston—W. A. McElroy, Pres., Texas Standard Bldg. and Loan Assn., started work on English type residence, 3209 Raba Drive; brick veneer, 2 stories. 1-24

Tex., Houston—Geo. T. Broun, 4516 Main St., erect 2 English type dwellings, 1600 Milford St. and 2148 Innwood Drive; brick veneer, 2 stories. 1-24

Tex., San Antonio—A. Eidelberg, 111 Delaware St., erect rock veneer and rein. conc. residence, Oakmont Addition; English type, 2 stories, brick trim, asbestos shingle roof; Albaugh & Steinbomer, Archts., Real Est. Bldg.; Clore & Clark, Contrs., 409 W. Park Ave. 1-24

Tex., San Antonio—Ben C. Carr, 1542 N. Alamo St., erect clinker brick residence, Hildebrandt Ave., Oakmont Addition; rein. conc. foundation, cast stone, 2 stories, asbestos shingle roof; Albaugh & Steinbomer, Archts., Real Estate Bldg.; Clore & Clarke, Contrs., 409 W. Park Ave. 1-24

Tex., San Angelo—Arch Lewis started work on \$10,000 residence, S. Monroe St.; English type, brick; Callison Bros. Contrs. 1-24

Va., Norfolk—Stone Bros., Inc., Paul Stone, Arcade Bldg., erecting 2 of first 6 dwellings in Del Rio, new subdivision on Lafayette River; Mediterranean type, stucco, semi-fireproof; sell for from \$6000 to \$6500 cash; subdivision to contain 52 dwellings. 1-24

Government and State

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supv. Archt., let contract at \$37,215 to A. B. See Elevator Co., Inc., 1343 H St., N. W., for removing and replacing elevators in Treasury Bldg. 1-24

Ga., Fort Benning—Connors Steel Co., Birmingham, Ala., has contract for 275 tons rein. steel for \$300,000 Barracks No. 2, Fort Benning; James C. Miller Co., Contr., Campbellsville, Ky. 1-17

Hospitals, Sanitariums, Etc.

Fla., Lake City—United States Veterans Bureau, Arlington Bldg., Washington, D. C., let contract at \$53,337 to J. M. Raymond Construction Co., 418 Hildebrandt Bldg., Jacksonville, Fla., for alterations to Bldg. No. 4, U. S. Veterans Hospital. 1-24

Ga., Columbus—Drs. J. L. Miller and E. A. Davis, 2214 Hamilton Ave., erect \$15,000 veterinary hospital, Tenth Ave. and 13th St.; brick, conc. foundation, tar and gravel roof; C. W. Buck & Son, Contrs., 704 23rd St. 1-24

N. C., Roaring Gap—Roaring Gap Hospital let contract to Walter R. Weaver, Jefferson, for \$25,000 baby hospital; frame, conc. foundation, 1 and 2 stories, 35 and 48x142 ft., wood floors, Barrett 5-ply roof; address proposals on equipment to Northrup & O'Brien, Archts., Starbuck Bldg., Winston-Salem. See Want Section—Building Material and Equipment. 1-24

Tex., Austin—City let contract for \$45,000 addition to Brackenridge Hospital, 1400 Sabine St., to H. E. Wattinger, 401 Paul St.; brick and conc., conc. floors; H. F. Kuehne, Archt., Littlefield Bldg. 1-24

Hotels and Apartments

Ala., Gadsden—A. P. Reich Hotel Co., Inc., A. P. Reich, Pres., let contract to Day & Sachs, 2400 Avenue E., Birmingham, for \$500,000, 10-story rein. conc., steel, brick and

stone trim Hotel Printup, 7th Ave. and Broad St.; plumbing, heating and vacuum cleaning system, Fate Company, 2215 Ave. A.; electric wiring and installation electric motors, Bagby Elevator & Electric Co., 121 S. 20th St., both Birmingham; 14 stores and offices, 125-car garage; D. O. Whildin, Archt., 515 N. 21st St., Birmingham. 1-24

Ark., Rogers—J. S. Small has contract for electric wiring for \$140,000, 5-story hotel under construction for Lane Hotel Co., S. A. Lane, Gleason Bldg., Little Rock; G. F. Hentchel, Contr., 1211 S. Pickwick Ave., Springfield, Mo.; John P. Almand, Archt., Boyle Bldg., Little Rock. 7-19

D. C., Washington—Clifton Manor Apartment Corp. let contract to M. A. Long Co., Albee Bldg., Washington, and Long Bldg., Baltimore, for 8-story, brick, steel frame, limestone trim, fireproof, Colonial type, Clifton Manor Apartments, 2514-16 Fourteenth St. N. W.; 56 suites, 14 offices and 2 stores on first floor; Milburn-Heister Co., Archts., Hill Bldg. 10-25

Fla., South Jacksonville, Jacksonville—T. R. Hewett has permit for 2-story brick and fireproof apartment in Shadyside; Colonial type; B. N. Inmann, Bldr., 236 Sorrento St. 1-24

Ga., Columbus—John Brown, Brown Electric Co., 1219 Broad St., plans brick veneer 4-apartment; hardwood floors, tiled bath; owner builds. 1-24

Ky., Louisville—Waldman Brothers, Bldrs., 719 W. Jefferson St., started work on two 2-story brick, 8-apartments, 868-70 Eastern Parkway; \$40,000, tile roofs. 1-24

Mo., Maplewood, St. Louis—Home Realty & Building Co., 1120 Locust St., excavating for \$15,000, 2-story and basement, 31x49-ft. brick 4-apartment, 7307-09 Zephyr Place; owner. Archt.-Bldr. 1-24

Mo., St. Louis—A. H. Tucker, care Nathan M. Kaplan Construction Co., Contr., 806 Chestnut St., excavating for 3-story and basement, 76x80 ft., brick and rein. conc. fireproof, 12-apartment, Byron and Westwood Sts., Blue Ridge Terrace; Russell Conzelman, Archt., 312 Calumet Bldg. 1-24

Mo., St. Louis—Corner Investment Co., 904 Chestnut St., erect \$200,000, 3-story, 100x148 ft., brick store and apartment, Delmar and DeBaliere Blvd.; stores on first floor. J. Rubin & Sons, Contrs., 904 Chestnut St.; Bowling & Shank, Archts., Arcade Bldg. 1-24

Mo., St. Louis—B. Goldberg & R. J. Wenner, owners and Bldrs., 5845 Terry St., have permit for \$18,000, 2-story, 61x98-ft. brick tenement, 3450-54 Texas St.; comp. shingle roof, hot air heat. 1-24

Mo., St. Louis—I. H. Brockett erect \$10,000, 2-story, 46x30-ft. brick tenement, 3250-52 Watson road; comp. shingle roof, hot air heat; J. B. Brockett, Bldr., both 6559 Arsenal St. 1-24

Mo., St. Louis—Fourmen Realty Co., Sam Goldstein, Pres., plans \$1,000,000, 8-story and basement, 200x146 ft., brick, rein. conc., terra cotta hotel and department store, Hamilton and Easton Aves.; basement, first and second floors for department store, upper 6 floors for 220 hotel rooms; Sol Abrahams Construction Co., Contr.; Leo F. Abrams, Archt., all 1123 Chemical Bldg. 1-24

Mo., St. Louis—A. Birke, 5728 Lisette St., excavating for \$12,000, 2-story and basement, brick apartment, 3438-40 Shenandoah Ave.; Barth Building & Realty Co., Contr., 4149 Gravois Ave.; Hubert Guth, Archt., 813½ Chestnut St. 1-24

Mo., University City, St. Louis—Frank X. Bouche, 7211 Anna Ave., Maplewood, let contract to S. C. Peterson, 6625 Delmar Blvd., for \$10,000, 2-story, 36x61.6 ft., brick, 4-apartment, 7050 Forsyth Blvd.; comp. roof, steam heat; Edw. Kelley, Archt., 6626 Delmar Blvd. 1-24

Mo., University City—Nat Gordon, Gordon-Horen Realty Co., 906 Grand Ave., erect \$18,000, 2-story and basement, 28x57-ft. brick apartment; Jos. D. Standish, Archt., 3341A Clara Ave.; owner builds. 1-24

Mo., St. Louis—W. Loomstein, 5944 De Giverville St., start work soon on \$50,000, 2-story and basement, 86x94 ft., brick 16-apartment, 5830-86 Wabada Ave.; owner, Archt.-Bldr. 1-24

Tenn., Memphis—White Realty Co., Contrs., 1732 Poplar St., started work on five \$20,000 brick and stone 4-apartments on E. Parkway near Central Ave., for J. L. White, Jr., Herbert Herff, 38 N. Third St., and Leo Goodman, 1898 Autumn St. 1-24

Tenn., Memphis—Dave Derman Realty Co., D. M. Olszwanger, Sec.-Treas., plans soon start work on \$60,000, brick and stone, 16-apartment, 340 N. Cleveland St.; 16-car garage in rear; W. C. Lester, Archt., both Derman Bldg. 1-24

Tex., San Antonio—Paul Sheffer, 203 E. Huisache St., erect \$18,000, stucco, 10-apart-

ment, 931 W. Huisache St.; Ferguson & Wood, Contrs., 1014 Drexel St. 1-24

Tenn., Trenton—John Hassell, Contr., erect apartment, Church and First Sts. 1-24

Va., Roanoke—New Hotel Corp., Liberty Trust Bldg., let contract at \$206,101 to J. P. Barbour & Son, 400 Lafayette St., for 10-story, 125-room rear addition to Patrick Henry Hotel; Frye & Stone, Archts., MacBain Bldg. 1-24

Miscellaneous

Okla., Tulsa—Oklahoma Amusement Co., B. D. Harris, Pres., 318½ N. Greenwood St., let contract to G. D. Morrow & Son, Kennedy Bldg., for amusement park on Sheridan road; \$500,000, main building 2 stories, 100x338 ft., rein. conc. and terra cotta, gymnasium, bowling alleys; Smith & Senter, Archts., Phil-tower Bldg. 1-24

Tex., San Antonio—Avalon Club Hotel Properties, Inc., Porter Loring, Pres., let contract at \$117,252 to P. M. Gordon, Builders Exchange Bldg., for \$180,000, 2-story, stone combination club and hotel on Lake Medina; Ralph H. Cameron, Archt., City Natl. Bank Bldg. 1-31

Railway Stations, Sheds, Etc.

Ky., Madisonville—Louisville and Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, let contract to Platoff & Bush, 122 Liberty St., Louisville, for \$75,000, 2-story depot. 7-26

Schools

Ala., Birmingham—Bd. of Education, V. J. Douglass, Supr. Manual Training, 2015 Seventh Ave., N., erect \$50,000 stadium at Woodlawn High School; plans being prepared by students and to be built by day labor. 1-31

Ala., Montgomery—Woman's College of Alabama, Dr. Walter G. Agnew, Pres., let contract at \$77,510 to A. C. Samford, Shepherd Bldg., for \$90,000, 2-story, 106x51 ft., rein. conc., brick, stone trim Houghton Memorial Library; Frank Lockwood, Archt., 119 Adams St. 1-31

Ga., Cary—Bd. of School Trustees, J. B. Porter, Chmn., let contract at \$13,500 to J. W. Bracewell, Cochran, for 1-story and basement, 110x160-ft. brick veneer school; 12 classrooms, galvanized sheet metal roof, oak floors; Lauren Parrott, Archt., Fitzgerald. See Want Section—Building Material and Equipment. 1-31

La., New Orleans—Tile Shop, Inc., 824 Carondelet St., has contract for tile work on 3-story, 42-classroom Charles J. Colton School; Caldwell Bros., Gen. Contrs., 816 Howard Ave.; E. A. Christy, Supv. Archt. 10-25

Md., Westminster—Carroll County Bd. of Education, M. Unger, Supt., let contract at \$45,390 to N. C. Erb for Charles Carroll High School; 2 stories, brick and steel; B. E. Starr, Archt., Spooner Bldg., 9 Market St., Harrisburg, Pa. 1-3

Tex., Beaumont—Jones & Laughlin Steel Corp., Pittsburgh, has contract for 450 tons fabricated struc. steel for Beaumont High School for which McDaniel Brothers, Kyle Bldg., has general contract at \$617,450; F. W. & D. E. Steinman, Archts., San Jacinto Life Bldg.; Harry D. Payne, Consit. Archt., Kirby Bldg., Houston. 11-22

Tex., Houston—Rogers Asbestos Co., Buffalo and Commerce Sts., has contract for ventilating and sheet metal work on Jefferson Davis Sr. High School addition for which Bace Construction Co., Post-Dispatch Bldg., has general contract at \$157,800; Hedrick & Gottlieb, Archts., Post-Dispatch Bldg. 12-27

Va., Sweet Briar—Sweet Briar College let contract to John P. Pettyjohn & Co., 212 Eighth St., Lynchburg, for \$150,000 library; Clarke & Crowe, Krise Bldg., Lynchburg, and Cram & Ferguson, 248 Boylston St., Boston, Mass., Archts. 1-24

Stores

Ala., Ensley—Goldstein & Cohen, 404 19th St., let contract to Thos. C. Brasfield, 5108 Gary Ave., Fairfield, for \$23,500, 1-story, 36x55 ft. store; work started; Brooke B. Burnham, Archt., Comer Bldg., Birmingham. See Want Section—Building Material and Equipment. 1-31

Ark., Lake Village—Mrs. Mary Karam let contract to A. G. Simms for 50x70-ft. brick 3-store building on W. Main St. to replace burned structures. 1-24

Fla., Jacksonville—Ernest L. Hill Realty Co., P. J. D. Lamoreux, Mgr., Peninsula Casualty Bldg., renovate and combine Albert and Jackson Hotel buildings to be known as Albert-Jackson Hotel; remodel lower floor for

store to be leased W. T. Grant Co., New York; \$80,000 to \$100,000; W. D. Gerbrich & Co., Contrs., Hildebrandt Bldg.; Jefferson D. Powell, Archt., Professional Bldg.

Ga., Atlanta—Sears, Roebuck & Co., L. H. Beall, Mgr., Atlanta branch, started excavation for \$500,000, 120x140-ft., 2-story and basement, brick, rein. conc. annex; 100,000 sq. ft. floor space; B. W. Construction Co., Contr., 720 Cass St., Chicago, and 495 N. Watkins St., Memphis, Tenn.; Nimmons, Carr & Wright, Archts., 333 N. Michigan Ave., Chicago. 12-27

La., New Orleans—Lionel F. Favret, Louisiana Bldg., has contract at \$13,343 to remodel and erect addition to building at 201-09 Baronne St.; Moise H. Goldstein, Archt., Hibernia Bldg.

Miss., Jackson—Beacham Supply Co. erect \$15,000, 1-story, brick and stine trim store and office; comp. roof; N. W. Overstreet, Archt., Mississippi Fire Insurance Bldg.

Mo., St. Louis—Fourmen Realty Co. See Contracts Awarded—Hotels and Apartments.

Mo., St. Louis—Davis Estate, 112 N. 7th St., erect \$60,000, 2-story, 176x130 ft., brick store and loft building, 1900-16 Washington St.; B. J. Charleville, Bldr., 114 N. 7th St.; Russell A. Conzelman, Archt., 312 Calumet Bldg.; all contracts let.

Okla., Tulsa—A. W. Pigford, Palace Bldg., let contract to DeWitt & Howard for \$13,000, 1-story and basement, 55x115 ft., brick, stone, conc., steel and hollow tile store, 14th St. and Boston Ave.; comp. roof, skylights; John V. Starr, Archt., 102 S. Owasso St. 1-31

S. C., Gaffney—Gaffney Manufacturing Co., Geo. Hill, Company Engr., Spartanburg, erect 1-story, 40x80-ft. brick store on Railroad Ave.; work by own forces.

Tex., Alpine—Jim Wilson let contract to Odell Brothers for 31-ft. hollow tile addition to store on Fifth Ave. to be occupied by Packaway Grocery.

Tex., Fort Worth—Waples-Platter Grocery Co., 1819 Jones St., let contract to Thos. S. Byrne, 504 Van Zandt Bldg., for \$40,000, 2-story, 110x220 ft., brick, rein. conc. store on E. Front St.; Wyatt C. Hedrick, Inc., First Natl. Bank Bldg.

Tex., Fort Worth—E. S. Newcome, 812 Dan Waggoner Bldg., has contract at \$42,423 to erect 1-story and basement, stucco and stone store, Pennsylvania and Henderson Sts., to be occupied by Alexander Bale Stores "of North Texas"; furniture and fixtures, \$50,000; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg. 1-31

Tex., Houston—Jesse H. Jones; Bankers Mortgage Bldg., let contract to T. B. Hubbard Construction Co., 1507 Shepherd St., for 4-story, 50x100 ft. store on Main St.; A. C. Finn, Archt., Bankers Mortgage Bldg.

Tex., Houston—Hearthstone Company, 1400 Paige St., erect \$10,000, 1-story, 62½x60 ft., tile and stucco store, 1427 Richmond road, for R. H. Goodrich, 1530 Sul Ross St.

Tex., Hereford—A. H. Elliston excavating for 30x120-ft. store on Main St.

Tex., Houston—James Bute Co., Texas and Fannin Sts., remodel 2-story, 125x175-ft. building, McKinney and Caroline Sts.; \$40,000; Chris. J. Miller, Contr., Lazy Lane Joseph Finger, Archt., Keystone Bldg.

Tex., Houston—Fox Estate let contract at \$17,500 to James M. L. West, Post-Dispatch Bldg., for remodeling 3-story building, Main and Preston Sts., recently damaged by fire; Einar H. Stube, Archt., 4610 Main St.

Tex., Taylor—O. E. Roberts and C. B. Chaloner let contract to Phillips & Skipworth, Waco, for \$16,000 conc. building.

Tex., Waco—Wm. & K. Clemens Estate, New Braunfels, let contract to William Smith, 1320 Franklin Ave., for \$40,000, 2-story and basement, 25x165-ft., rein. conc., struc. steel and brick store, Seventh and Austin Sts.; Harry L. Spicer, Archt., Amicable Bldg. 1-3

Tex., Yorktown—Jacob Nieman Dry Goods Co. let contract to H. Gohlke for 1-story fireproof building on Main St.

Va., Danville—Danville Warehouse Co. See Buildings Proposed—Warehouses.

Va., Norfolk—S. S. Kresge Co., Detroit, let contract to W. T. Gregory, Law Bldg., for remodeling Dickson Bldg. for stores and erection 4-story, 65x100 ft., brick, fireproof warehouse in rear Monticello Ave. and Tazewell St.; \$250,000; work under supervision J. J. McGonnell, Constr. Supt. of Kresge Co. 1-24

Theaters

Md., Baltimore—Harry E. Reddick, 3134 Eastern Ave., has permit for \$15,000, 75x50-ft. addition to theater; steam heat; Kubitz & Koenig, Archts., Emerson Tower Bldg.; owner builds.

Miss., Hattiesburg—Saenger, Inc., 1401 Tulane Ave., New Orleans, let contract at \$109,988 to McArthur & McLemore, M. W. Bldg., Meridian, for rein. conc., brick, steel, stone trim fireproof theatre, Forrest and Front Sts.; auditorium to seat 1500; tile and comp. roof, marble and tile floors; Emile Well, Archt., Whitney Bk. Bldg., New Orleans. 1-31

Okla., Lawton—Following sub-contracts awarded on \$100,000, 3-story, 50x150 ft., struct. steel frame, brick, hollow tile, stone trim theater for Lawton Amusement Co., Taylor Bros. & Co., Brown Bldg., Wichita Falls, Tex., Gen. Contr.: Steel and iron work, steel sash, metal doors, Larrance Tank Co.; plumbing, Joe Andrews, both Lawton; wiring, Wetherbee Electric Co., 412 N. Hudson St.; sheet metal and roof, Standard Roofing Co., Broadway and 24th St., both Oklahoma City; mill work, Falls Sash and Door Co., 302 Oak St., Wichita Falls; W. T. Vahlberg, Archt., Braniff Bldg., Oklahoma City. 1-31

Tex., Carrizozo Springs—Mrs. Maybelle B. White, Big Wells, let contract to C. H. Cagle & Sons, Carrizozo Springs, for 1-story, 120x50 ft., brick, rein. conc., fireproof theater; D. D. Callahan, Lessee; Will N. Noonan Co., Builders Exchange Bldg., San Antonio.

Tex., Stratford—G. A. Hart started work on 1-story, 30x90-ft. brick and tile moving picture theater; cement floors; seating capacity 500; Bird McDaniel, Contr. See Want Section—Building Material and Equipment. 1-31

Warehouses

Ala., Birmingham—Stacy Williams Co., 1624 N. First Ave., has permit for \$18,000, 2-story, 50x120-ft. brick warehouse, N. Fourth Ave.; Wilborn Construction Co., Contr., 2007 Avenue J, Ensley.

S. C., Newberry—Oakland Mills let contract to Brown Harry Construction Co., E. Main St., Gastonia, N. C., for brick warehouse; tar and gravel roof; Lockwood Greene Engineers, Inc., Engrs., Charlotte, N. C.

Trade Literature

Paint.—Explanation that Cemcoat is more than a mill white paint and, indeed, "is more than a paint," is given in a booklet issued by L. Sonneborn Sons, Inc., New York, which states that Cemcoat stays white because exclusive Sonneborn treatment of the oils assures their oxidation without discoloration. A virtue attributed to Cemcoat is that "it automatically cleans surfaces to which it is applied and it is easily washed without the slightest harm." The booklet gives pictures of the Pacolet Mills, New Holland, Ga.; Southern Power Company plant at Spartanburg, S. C., and Pine Hills Hotel, Pass Christian, Miss., as among the places where Cemcoat has been used, and also a list of endorers. Copies of the booklet will be sent upon request to the company at New York or to its office in Baltimore. Lignophol, a wood preservative, is described in another booklet of the company.

Tractor Equipment.—How the Trackson Bulldozer "lowers yardage costs" is set forth in a leaflet by the Trackson Company, full-crawlers and tractor equipment, Milwaukee, Wis. This heavy duty unit is made especially for mounting on model DH Trackson McCormick-Deering crawler-tractor and is built entirely of heavy steel to withstand unusual strains, twists and shocks of dirt moving. Specifications and other information are given in the pamphlet.

Tractors.—In its catalog No. 3 the Western Crucible Steel Casting Company, Minneapolis, Minn., presents a revised list of Westeco steel tractor parts for artillery type tractors, with instructions for ordering tractor repair parts. Great care to assure the quality of material for the parts is outlined under the head of "Material."

Explosives.—E. I. du Pont de Nemours & Company, Inc., Wilmington, Del., have issued a bulletin entitled "Brands of du Pont Explosives and Uses to Which They Are Adapted," which contains the latest edition of a chart designed to aid users "to avoid the purchase of unsuitable explosives and to select those which will give best results in proportion to cost." The chart includes new explosives added to the du Pont list during the past year, among these being Agritol and Monobels No. 11 and No. 12.

Curing for Concrete.—Recent information on curing concrete highways with silicate of soda is furnished in a pamphlet issued by the Grasselli Chemical Company, Cleveland, Ohio, describing Grasselli R-B product. Directions on dilution and application and equipment are given, with specifications, charts and tables. Among the sites of the company's offices are Birmingham, Charlotte, N. C.; New Orleans and St. Louis.

Report On Pipe Welding.

Findings of a subcommittee on pipe joints, of the American Gas Association, Inc., have been published in a booklet entitled, "Oxy-Acetylene Welding of Steel Pipe." The book contains the results of strength tests of steel pipe, both plain and welded; cost data, information about welding rod, procedure controls and the use of templates in the layout of welded pipe fittings.

New Orleans Industrial Zone.

"A Survey of the New Orleans Industrial Zone, Where Production and Distribution Costs Are Lower," is the title of a booklet prepared by the J. F. Coleman Engineering Company for the national advertising committee of the New Orleans Association of Commerce. A great amount of interesting and valuable information is given, including maps, tables and statistics.

Book Review

County Government and Administration in North Carolina, by Paul Woodford Wager, Ph.D. Chapel Hill, N. C.: The University of North Carolina Press. Cloth. Pp. 447. \$5.

While this book is mainly descriptive, it contains enough of illustration and suggestion to give it a dynamic quality, and in general and largely in detail it describes truly and frankly many prevailing practices in county government in North Carolina. Most of the changes suggested in the volume are features of organization or administration which have appeared to be successful in other States or in some North Carolina counties. Few abstract discussions are presented and the book will be readable and interesting to the average taxpayer and citizen. After a study of the county as a geographic area, the writer undertakes its consideration as a political unit with particular reference to its nature and functions and its relative importance in the scheme of things. The board of county commissioners is vivisectioned, with references to constitutional and statutory limitations, levy taxes, and so on, and the assessment and collection of taxes follow. Under fiscal control, the author treats of the custody of funds, expending county funds, county accounting, county fiscal control law, auditing and reporting, county indebtedness and borrowing policies, county finance law and state supervision and guidance. All this will indicate that the subject has been treated with great thoroughness. The book will be found of both value and interest.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Machinery and Supplies

Canning Machinery.—St. John Courtenay, 103 S. Gregg St., Columbia, S. C., preparing to organize large canning factory for canning vegetables and fruits and wants data from canners and makers of canning machinery.

Clay Feeder.—Lewter F. Hobbs, Inc. (Machinery Contractors Equipment, New and Used), Norfolk, Va.—Wants prices and data on clay feeder, used, first class.

Cotton Bat, Mattress and Felting Machinery.—W. E. Thies, 801 12th St., Georgetown, Tex.—Wants prices and data on cotton bat, mattress and felting machinery.

Dough Mixers.—Lorick & Lowrance, Inc., R. W. Bass (Hardware Jobbers), Columbia, S. C.—Wants prices and data on dough mixers suitable for colleges.

Drag Line.—Beaumont Rice Mills, Inc., J. E. Broussard, Pres. (Rice Growers, Millers and Distributors), Beaumont, Tex.—Wants prices and data on drag line, ¾-yd., second hand, P. & H. or Bucyrus, good condition.

Cynthiana Dairy Co., 109 S. Main St., Cynthiana, Ky.—Wants prices and data on following:

- (1) Cheese Vat—small
- (2) Churn—or butter maker with motor for A. C. current, 100 or 150-lb., used
- (3) Ice Machine—3 or 4-ton, used, guaranteed.

Jaw Crusher.—Brown Craven Equipment Co., R. C. Craven, Mgr. (New and Used Contractors' Equipment), 706 Manning St., N. Chattanooga, Tenn.—Wants prices and data on jaw crusher, 36x42 in. or 42x48 in., used, first class condition.

Doughnut Machinery.—Business Service Co., F. J. Bates, Mgr., Drhumor Bldg., Asheville, N. C.—Wants prices and data on machines for making greaseless doughnuts, electrically baked, round and triangle shapes.

Pipe (Water and Gas).—Dr. Arthur Smith, Lake Bldg., Marshall, Tex.—Wants prices on galv. water pipe and gas mains (black), c.l.; developing golf course.

Railroad Turntable.—Lewter F. Hobbs, Inc. (Mchy. Contractors, Equipment New and Used), McKevitt Bldg., Norfolk, Va.—Wants prices and data on railroad turntable of sufficient capacity to handle 100,000-lb. capacity gondola loaded.

Roller Bits.—Robert H. Leeper, Hazel Hotel, Newport, Ark.—Wants prices and data on roller bits for cutting rock, to be used on rotary drilling outfit.

Saw (Carborundum).—John Klepach, Box 233, New Port Richey, Fla.—Wants prices and data on electric carborundum saw for cutting stone.

Shovel Attachment.—William F. Bowe, Jr., Raleigh, N. C.—Wants prices and data on shovel attachment, complete, for Koehring, No. 1 crane (1927) model, used, good condition.

Woodworking Machine.—Thornhill Wagon Co. (Wagon Manufacturers), Lynchburg, Va.—Wants prices and data on 4 sided molder to work pine boards 1x14 in. to 1x2 in. and oak and hickory lumber 4x5 in. and smaller.

Vegetable Dryer.—R. E. Thompson, Wilson, La.—Wants prices and data on used dryer for red peppers and other vegetables, Procter & Schwartz or other good make.

Arlington Paint & Varnish Co., Alfred B. Stellwagon, Mgr., Cartersville, Ga.—Wants prices and data on following:

- (1) Belting
- (2) Elevator
- (3) Motors
- (4) Pumps
- (5) Shafting
- (6) Tanks.

Ranette Mfg. Co., Inc., 1917 S. Broadway, St. Louis, Mo.—Wants prices and data on following:

- (1) Boilers (Cooking)—or kettles, electric or gas heated, agitated

- (2) Motors—A. C., 110 volt, single phase, 1 to 5 h. p., low R. P. M.

Interstate Casket Co., Frank L. Cash, Norton, Va.—Wants prices and data on following used equipment:

- (1) Engine (Steam)—7 h. p., 6x6 in.
- (2) Generator (Electric)—steam driven, about 5 kw., 110 volt, A. C. preferred, direct connected.

Miscellaneous.

Felt Cutting Dies.—Snow Hill School, Robt. W. Isley, Prin., Snow Hill, N. C.—Wants prices and data on dies for cutting letters from felt.

Necktie Fabrics.—Onslow S. Robinson, Route 2, Box 177, St. Petersburg, Fla., wants prices and data on fabrics used for manufacture of neckties; will start on small scale so may use remnants.

Waxed Bags.—Otis Brabham (Fertilizer Material, Meal and Hulls, Field Seeds and Farm Products), Allendale, S. C.—Wants prices and data on waxed bags, similar to those used for salted peanuts.

W. R. Fuller (Building and Road Materials, Representing Manufacturers Direct), 408 Zack St., Bruen-Webb Bldg., Tampa, Fla.—Wants to represent company manufacturing buff shale brick in South, preferably Alabama.

Madisco Hardware Co., Inc., F. B. Dalhoff, Pres., 309 Strand St., Shreveport, La.—Wants prices and data on following:

- (1) Cutlery
- (2) Hardware
- (3) Sporting Goods—wholesale.

Building Material and Equipment

Dr. Arthur Smith, Lake Bldg., Marshall, Tex., wants prices on tile and other building material for clubhouse and residence.

John W. Cowper Co., Inc., S. K. Pierce, V.-Pres., State Planters Bank Bldg., Richmond, Va., bidding on large shop at Russell, Ky., and Huntington, W. Va., for Chesapeake and Ohio Ry. Co., desires prices on materials and sub-work by Feb. 19.

E. V. Overton, Contr., Eudora, Ark., wants prices on following for \$12,000, 1-story warehouse:

- Fire Door
- Skylights—five 5x10 ft.
- Wire Glass.

John Klepach, Box 233, New Port Richey, Fla.—Wants prices on following:

- Electrical Equipment
- Glass for Windows
- Hot Air Furnace
- Oil Heating Apparatus
- Steel Sash and Casements.

Lauren Parrott, Archt., Fitzgerald, Ga., wants prices on following for \$15,000 school, Gary, Ga.:

- Flooring—hardwood
- Plaster Board.

G. A. Hart, Stratford, Tex., wants prices on following for moving picture to seat 500 people:

- Air Cooling System
- Metal Ceilings
- Metal Doors
- Seating—theater chairs, veneered, new or good used seats.

Dalton Hooper, Contr., 1805 Sul Ross St., Houston, Tex., wants prices on following for \$25,000 dwelling:

- Cast Stone
- Flooring—hardwood, tile
- Electric Refrigerator
- Mail Chutes
- Roofing (hip)—tile.

Walter R. Weaver, Contr., Jefferson, N. C., wants prices on following for \$19,250 hospital, Roaring Gap, N. C.:

- Flooring—linoleum, terrazzo
- Roofing—asphalt shingle, built-up
- Ventilators
- Wire Glass
- Brass and Bronze Work.

Albert E. Gredig, Archt., Mercantile Bldg., Knoxville, Tenn., wants prices on following for \$18,000 dwelling:

- Electric Refrigerators
- Flooring—hardwood, tile
- Roofing—slate.

Brooke B. Burnham, Archt., Comer Bldg., Birmingham, Ala., wants prices on following for \$23,500 store for Goldstein & Cohen, Ensley:

- Flooring—hardwood, terrazzo
- Marble
- Brass and Bronze Work.

J. W. Hobbs, 233 E. High St., Jefferson City, Mo., wants prices on following in connection with remodeling Madison Hotel:

- Elevators
- Flooring—linoleum, composition
- Mail Chutes
- Metal Ceilings
- Metal Doors
- Plaster Board
- Sprinklers
- Steel Sash and Trim
- Tile—gypsum, interior
- Brass and Bronze Work.

Shapiro Construction Co., Inc., Contr., 1416 Eye St., N. W., Washington, D. C., wants prices on following for 8-apartment for Hampshire Garden Corp., Inc.:

- Brick—face and common
- Electric Fixtures
- Electric Refrigerators
- Cast Stone
- Flooring—oak, linoleum, terrazzo, tile
- Gas Ranges
- Inclinerator
- Kalamene Doors
- Limestone
- Lumber
- Mail Boxes
- Marble
- Metal Trim—for hall doors
- Metal Doors
- Millwork
- Plaster Board
- Plumbing
- Roofing—slate, tile
- Steel—rein. conc., structural
- Steel Sash and Trim
- Servadors—or equal
- Window Shades.

Bids Asked

Bars, Brass and Steel.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 11 for bars, brass and steel, delivery Quantico, Va.

Bench Lathe.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 11 for bench lathe, delivery San Francisco, Cal.

Blueprint Machines.—Comms., District of Columbia, Washington, D. C.—Bids Feb. 11 for blueprint machines for McKinley High School.

Book Stacks.—Archt. U. S. Capitol, Washington, D. C.—Bids Feb. 22 for extending and constructing book stacks for Congressional Library.

Bridges.—State of Texas—Bids for 2 bridges. See Construction News—Roads, Streets, Paving.

Bridges.—State of Maryland—Bids for 5 bridges. See Construction News—Bridges, Culverts, Viaducts.

Bridges, etc.—State of North Carolina—Bids for bridges and approaches. See Construction News—Roads, Streets, Paving.

Bridge Material.—H. G. Hamrick, County Auditor, Amarillo, Tex.—Bids Feb. 9 for one or more cars of untreated and treated lumber, one car of treated posts; Sam B. Motlow, County Judge.

Building Repairs.—Ch. Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids Feb. 20 for building repairs at St. Juliens Creek, Va.

Bulkhead, Dredging and Fill.—Bd. of Awards, Baltimore, Md.—Bids Feb. 13 for bulkhead and fill at municipal airport; conc. bulkhead 4800 ft. long; 1,000,000 cu. yd. dredging; steel sheet piling bulkhead 1800 ft. long; wood fence, 3,500 ft.

Canal Lining.—Hidalgo County Water Improvement District No. 2, Hidalgo County, San Juan, Tex.—Bids Feb. 28 at office of district for construction conc. canal lining.

Dredging.—U. S. Engr. Office, Jacksonville, Fla.—Bids Mar. 7 for dredging approx. 100,600 cu. yd. in Cedar Keys Harbor, Fla.

Dredging.—U. S. Engr. Office, Philadelphia, Pa.—Bids Mar. 1 for dredging in Delaware River, upper Philadelphia harbor (300,000 cu. yds.).

Dredging.—U. S. Engr. Office, Wilmington, N. C.—Bids Mar. 9 for furnishing all labor and materials and performing all work for dredging approx. 1,689,375 cu. yd. in Section V (Myrtle Sound, Cape Fear River) of Intracoastal Waterway, from Beaufort to Cape Fear River, N. C.

Electric Mixing Machines.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 14 for two electric mixing machines, delivery Quantico, Va., and San Francisco, Calif.

Electrical Supplies.—Q. M. Corps, Washington, D. C.—Bids Feb. 13 for 200 flush plates, 1000 ft. tempered steel, 100 insulating links, 250 sockets, etc.

Gravel.—Amarillo, Tex. See Construction News—Roads, Streets, Paving.

Laboratory Equipment.—District of Columbia, Washington—Bids Feb. 12 for laboratory equipment for McKinley High School.

Lumber.—See Bridge Material.

Hardware, etc.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 14 for hardware, etc., delivery Quantico, Va.

Conduit, etc.—Board of Awards of Baltimore City, City Register, City Hall, Baltimore, Md.—Bids Feb. 13 for 1,000 ft. of 2-in. fibre socket joint conduit, 250 2-in. bends, 15,000 ft. of 3-in. fibre socket joint conduit and 1,000 3-in. bends.

Miscellaneous.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Feb. 14 for rock crushing plant, special bronze, and sheet lead. Sch. 1939.

Miscellaneous.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Feb. 19 for following: Movable metal louvers and glazed tile. Sch. 1938.

Motor Truck.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids Feb. 12 for motor truck, delivery Naval Academy, Annapolis, Md.

Painting.—Office of Custodian, Custom House, Baltimore, Md.—Bids Feb. 13 for interior painting in Custom House.

Paving.—Homer, La. See Construction News—Roads, Streets, Paving.

Paving.—Shreveport, La. See Construction News—Roads, Streets, Paving.

Paving.—Eureka Springs, Ark. See Construction News—Roads, Streets, Paving.

Paving.—Brownwood, Tex. See Construction News—Roads, Streets, Paving.

Pipe (Cast Iron).—See Water Works.

Plumbing Supplies.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 12 for furnishing plumbing supplies, delivery to Quantico, Va.

Pumps.—See Water Works.

Roads.—State of North Carolina—Bids for 5 roads. See Construction News—Roads, Streets, Paving.

Roads.—Amarillo, Tex.—Bids for 2 roads. See Construction News—Roads, Streets, Paving.

Roads.—Quannah, Tex.—Bids for 2 roads. See Construction News—Roads, Streets, Paving.

Road.—Alice, Tex. See Construction News—Roads, Streets, Paving.

Road.—Rossville, Ga. See Construction News—Roads, Streets, Paving.

Road.—Sierra Blanca, Tex. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas—Bids for 8 roads. See Construction News—Roads, Streets, Paving.

Sheet Steel.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Feb. 11 for furnishing sheet steel, delivery Quantico, Va.

Street.—Miami, Fla. See Construction News—Roads, Streets, Paving.

Street.—San Antonio, Tex. See Construction News—Roads, Streets, Paving.

Street.—Dawson Springs, Ky. See Construction News—Roads, Streets, Paving.

Street.—Wilmington, N. C. See Construction News—Roads, Streets, Paving.

Street.—Asherton, Tex. See Construction News—Roads, Streets, Paving.

Street.—McComb, Miss. See Construction News—Roads, Streets, Paving.

Tank and Tower.—See Water Works.

Sulphate of Alumina.—Spoon & Lewis, Consulting Engr., Greensboro, N. C.—Bids Feb. 15 for up to 750 tons of sulphate of alumina.

Tower Clock System.—Bd. of County Comrs. of Volusia County, Fla.—Bids Feb. 16 for construction and installation of tower clock system of new Volusia County Court House, in DeLand, Volusia County, Fla.; specifications, etc., write W. D. Harper & Co., Archt., DeLand, Fla., or Florence, S. C.

Water Meters.—Spoon & Lewis, Consulting Engrs., Greensboro, N. C.—Bids Feb. 15 for water meters.

Water Works.—City of Brackettville, Tex., E. N. Oxten, Mayor—Bids Feb. 11 for complete installation of water works system, in-

cluding c. i. pipe, fire hydrants, 2 centrifugal pumps 250 g. p. m. direct connected to motors; 75,000 gal. steel tank and tower; pump house; city to furnish all pipe, fittings, hydrants, valves; contractor to furnish labor, tools, and appliances for doing work as well as all joint materials; H. G. Olmsted, Consult. Engr., El Paso.

Water Works.—Bd. of Public Works, St. Louis, Mo.—Bids Feb. 13 for furnishing all materials and labor and equipment for constructing shore intake at Chain of Rocks plant; plans, etc., at office of Water Commr., Room 312, City Hall.

Wire Fencing.—Bd. of Awards, Baltimore, Md., E. G. Rost, Water Engr.—Bids Feb. 13 for furnishing and erecting wire fence around Towson reservoir.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

York Machinery Installations.

The York Ice Machinery Corporation, ice making and refrigerating machinery, York, Pa., reports the following Southern sales and installations since December 26: Alabama—Chatom, John A. Richardson; Montgomery, Hotel Whitley. Arkansas—Fort Smith, Border City Ice & Cold Storage Co.; Van Buren, Van Buren Ice & Cold Storage Co.. District of Columbia—Washington, Annie E. Head, Sanitary Grocery Co., Inc., six. Florida—Dinsmore, V. Hildebrand; Oviedo, F. F. Dutton; Sanford, F. F. Dutton. Georgia—Newnan, H. V. Kell Co.; Valdosta, Armour & Company. Kentucky—Murray, Murray Milk Company. Louisiana—Bossier, Louisiana Refrigerated Products Corp.; New Orleans, United Fruit Co. Maryland—Baltimore, Maryland Dry Dock Co.; Cumberland, Neubiser & Lippold. Missouri—St. Louis, Weil's Market. North Carolina—Charlotte, Southern Dairies, Inc.; Wilmington, Independent Ice Co. South Carolina—Florence, McLeod Infirmary. Texas—Temple, T. V. Lawson, Frigid Ice Co. Virginia—Fredericksburg, Sanitary Grocery Co., Inc. West Virginia—Buckhannon, Buckhannon Produce Co.

Chicago Engineers Elect.

The Chicago Association of Consulting Engineers at its ninth annual meeting unanimously elected Ernest V. Lippe as president; Rollo E. Gilmore, vice-president, and H. L. Clute, secretary-treasurer. The retiring president was Irving E. Brooke. The Association consists of professional engineers engaged in mechanical, electrical and sanitary engineering, who are in no way connected with or interested in the sale of equipment or apparatus.

Southern Railway Report.

The Southern Railway Company income statement for the year ended December 31 shows gross operating revenues of \$144,116,452 and net revenue from operation as \$42,228,733, the railway operating income being \$30,842,554, and the total gross income \$37,225,455. The balance after dividend on preferred stock was \$16,267,132 and the equivalent per share on common stock was \$12.53.

Republic Quarterly Income.

Net profit of \$2,361,478 and net profit of \$1,888,483 applicable to dividends are shown in the income account of the Republic Iron & Steel Company for the quarter ending December 31 last, the surplus being \$791,462 for the quarter. Unfilled orders on hand as of December 31 were 405,929 tons, comparable with 365,601 tons on September 30. E. T. McCleary is president.

McLanahan-Stone Officers.

The McLanahan-Stone Machinery Company, Hollidaysburg, Pa., announces the election of the following officers: President, Alexander H. McLanahan; vice-president, A. T. Stone, Jr.; treasurer, Webster Calvin; secretary, Ashton Gardner; manager, Edward Krider; consulting engineer, William F. Kirk.

Universal Vacuum Sales.

Recent purchasers of Universal vacuum dry kiln equipment are announced by the Universal Vacuum Dry Kiln Company, Kansas City, Mo., as follows: Daniel Clark Company, Corry, Pa.; G. S. Stewart Company, Norwalk, Ohio; Northern Cooperage Company, St. Paul, Minn., and McComb Box Company, McComb, Miss.

Site for Pulp Mill.

Advantages of Clay City, Ky., as a site for a pulp mill are set forth by H. G. Garrett, president of the Broadhead-Garrett Company, hardwood lumber, Clay City, who says that "there is a heavy growth of timber suitable for pulp in Powell, Wolfe, Morgan, Menifee and Lee counties." There is plenty of experienced labor available. A pamphlet telling of 100,000 acres of cutover hardwood timberland available for forest reserve purposes is obtainable from Mr. Garrett.

Powdered Coal Discussed.

Under the title, "Powdered Fuel in Metallurgical Work," a booklet has been issued, containing a reprint of a paper prepared by W. O. Renkin, Combustion Engineering Corporation, New York, and presented before the World Power Conference, London, 1928. The paper deals principally with the use of powdered coal in the iron and steel industry, touching upon its use in some non-ferrous metal work, and will be of interest to many persons.

T. L. Smith Buys Kwik-Mix.

The T. L. Smith Company, Milwaukee, announces the purchase of the Kwik-Mix Concrete Mixer Company, Port Washington, Wis. The entire plant at Port Washington will continue, except that the business office will be combined with the Smith Milwaukee office. The T. L. Smith Company now has one of the most complete lines of mixers, ranging from the 2½-S size to the 112-S tilter, and including "a machine for every conceivable mixing job." The company is one of the independent divisions of the National Equipment Corporation.

Industrial Truck Association.

Announcement is made of the organization of the Industrial Truck Association, composed of manufacturers of electric industrial trucks, tractors, storage batteries and accessory equipment. The new organization is a development of the cooperative sales promotion activity which these manufacturers have conducted through the Society for Electric Development, Inc. The initial membership embraces 14 companies, said to produce over 90 per cent

of the products of the industry. C. B. Crockett is secretary in charge, with headquarters at 52 Vanderbilt avenue, New York, and the directors are: President, M. S. Towson, Cleveland; vice-presidents, E. J. Bartlett, Cleveland, and W. C. Allen, Stamford, Conn.; treasurer, G. A. Freeman, Buffalo, N. Y.

E. I. du Pont de Nemours & Co.

The annual report of E. I. du Pont de Nemours & Company shows an increase of

about 11 per cent in business for 1928 over 1927, and "a substantial increase in earnings." Income from operations ran to \$22,873,188. The surplus rose from \$97,785,243 at the beginning of the year to \$105,710,319 at the close, and current assets as of December 31 were \$108,329,114, and current liabilities were \$22,285,011. Plants and properties are carried at \$133,101,539, and the gross assets are \$463,333,203. "Good progress in the foreign field" is reported.

\$18,000,000 Improvements for Chesapeake & Ohio Railway.

Work to Start Immediately on Shop Extensions, Additional Track Facilities and General Improvement Work.

Improvements and extensions at an approximate expenditure of \$18,403,000 will be made by the Chesapeake and Ohio Railway at various points on its system, according to announcement by W. J. Harahan, President. These improvements include additional shop facilities, trackage, engine terminal facilities, freight and passenger depots, and grade crossing separations. Practically every part of the system will be benefitted. Preliminary plans for the work have been completed, and actual construction will be started without delay. The expenditures are made under authority recently granted by the Interstate Commerce Commission on the company's application to capitalize past expenditures for improvements for the purpose of reimbursing the company's treasury.

These improvements will give greatly needed additional facilities for increased business, and will produce noteworthy operating economies, say officials of the company.

In general detail, the expenditures will be made as follows:

Huntington, W. V., and vicinity—	
Rebuild locomotive shops	\$3,493,400
Third track, Barboursville to Pike Crossing, Catlettsburg, including signaling and interlocking	4,210,000
Rail sawing plant at Barboursville.....	50,000
Russell, Ky., and vicinity—	
New freight car repair shops, capacity 12,000 freight cars annually	3,162,000
Underpass and run-around tracks under main tracks east end yard, and connecting east bound yards and roundhouses	400,000
Installation car retarders, rearrange switches, revising grades in westbound classification yard.....	365,000
On eastbound yard, eight 140-car tracks, 70-car switching lead at west end; 30-car switching lead east end; undergrade crossing, and relocating county road....	997,000
Richmond, Va., and vicinity—	
Fulton roundhouse addition of the stalls.....	730,000
Seventeenth Street Shops.....	89,000
Clifton Forge, Va., and vicinity—	
Engine terminal improvements, 21-stall roundhouse, 115-foot turntable	690,000
Extend tracks in westbound yard.....	302,000
Hinton and vicinity—	
Engine terminal improvements.....	330,000
Extension of four tracks.....	638,000
Light repair tracks, necessary shop buildings.....	207,300
Big Sandy Sub-Division—	
Second track, Emma to Beaver Junction, 2.8 miles....	89,000
Extend passing siding at Louisa to hold 125 cars....	90,000
Northern Sub-Division—	
Second track, Sciotoville to Wheeler, Ohio, 4.3 miles...	961,000
Virginia Air Line—	
At Strathmore, extend tracks.....	103,200
Stevens, Ky.—	
Roundhouse improvements to engine terminal.....	594,000
Cheviot, Ohio—	
Engine terminal improvements, 400 ton capacity coal-lng station	84,000
Greenbrier Sub-Division—	
Strengthening 11 bridges.....	253,000
Limeville, Ky.—	
Interlocking and signals.....	82,100
Miami, Ohio—	
Grade crossing separation.....	104,500
Covington, Va.—	
Freight house, necessary tracks.....	97,500
Paintsville, Ky.—	
New passenger depot.....	71,400
Ferris, Ind.—	
Light repair tracks.....	90,500
Move freight depot, provide additional freight handling facilities	22,000
Ennice, W. Va.—	
30 dwellings for miners.....	70,374

Iowans to Operate Florida Canning Plant.

Press reports from Miami, Fla., state that S. T. Farmer, Story City, Iowa, has leased a building at Coral Gables and will establish a tomato packing plant there, to be operated by himself and J. Le Roy Farmer, Cedar Rapids, Iowa. The plant will employ about 75 operatives.

Texas County Considers \$6,000,000 Bond Issue.

Beaumont, Tex.—Plans for calling an election on a bond issue of \$6,000,000 for constructing a \$2,000,000 courthouse, a bridge across the Neches River near Port Arthur and for road work are being considered by the Jefferson County Commissioners Court.

Architects Selected for Jackson, Miss., Buildings.

Jackson, Miss.—Plans are now being prepared by Claude H. Lindsley, Jackson, for a 20-story \$1,000,000 building to be erected here by Enochs & Flowers, Ltd. N. W. Overstreet, local architect, is preparing plans for a 12-story building to be erected by the Plaza Realty Co.

To Manufacture Neckties.

Onslow S. Robinson of St. Petersburg, Fla., plans to manufacture neckties and wants to communicate with dealers or manufacturers of the fabrics used for this purpose. Initial operations will be on a small scale and Mr. Robinson advises that he will likely have to use remnants in order to get sufficient variety in output.

Contract for Pullman Car Shops at Bessemer, Ala.

The Pullman Car & Manufacturing Corp., Chicago, which recently acquired the car works of the Tennessee Coal, Iron & Railroad Co. at Fairfield, Ala., has awarded contract to the United Engineers & Constructors, Inc., Philadelphia, Pa., for the design and erection of large car shops at Bessemer, Ala. Plant buildings will include a car shop, 1512 by 103 feet; machine and truck shop, wood mill, wood car erection shop, lumber storage and paint shop. Several small buildings also will be erected for substations, offices, locker and wash rooms, all of which are included in the contract, as well as yard tracks, sewers, water supply, fire protection and other facilities. The plant will contain approximately 400,000 square feet of floor space.

West Virginia-Maryland Coal Official.

W. G. Snyder, Frostburg, Md., general manager of the Consolidation Coal Company, has been appointed by the American Mining Congress to represent West Virginia and Maryland coal interests on a National Committee on Mechanized Mining, serving as district representative for the Piedmont coal district of the northern West Virginia and Maryland field. Mr. Snyder will report on improvements in his district in mining methods, use of machinery, haulage systems, ventilation, blasting, preparation of coal and the use of power. As official observer, he will make available to the coal industry, through the National Committee of which he is a member, valuable technical information.

FINANCIAL NEWS

Bond Issues Proposed

Ala., Birmingham—Jefferson County Bd. of Revenue and Bd. of Education agreed to postpone any action on proposed \$1,000,000 bond issue for county schools. Lately noted bids Mar. 15 for bonds. 1-24

Ala., Mobile—Road—Mobile County Bd. of Revenue, reported, receives bids in Mar. for \$5,000,000 bonds; John R. Peavy, County Engr. 1-24

Ark., Mulberry—J. R. Chastain, Pres., Mulberry Special School Dist., receives bids Feb. 23 for \$25,000 bonds. 1-31

Fla., Bartow—City considering \$100,000 bond issue to purchase New Oaks Hotel. 1-24

Fla., Jacksonville—City Comm., M. W. Bishop, Sec., plans receiving bids in about 60 to 90 days for \$125,000 bonds, as city's share in Beaver St. viaduct. 1-24

Fla., Jacksonville—City, M. W. Bishop, Sec., received high bid from Lehman Brothers, New York City, at 102.626 for \$436,000 5% McCoy's Creek improvement bonds. 1-24

Fla., Ocala—Highway—Marion County Commrs., T. D. Lancaster, Clk., receive bids Feb. 25 for \$500,000 \$1,000 denom. not to exceed 6% bonds. 1-24

Ga., Bowman—Bd. of Education, A. E. Denny, Sec., receives bids Mar. 1 for \$25,000 5% \$1000 denom. school dist. bonds. 1-24

Ky., Ashland—Sewer—City, H. L. Carroll, Clk., plans selling first of \$400,000 bonds after May 1. 11-29

La., Lafayette—City, Wilson J. Peck, Sec., receives bids Mar. 11 for \$211,000 5% \$500 denom. improvement bonds; \$100,000 6% \$500 denom. bonds; J. Gilbert St. Julien, Mayor. 10-18, 11-29

La., Port Allen—Sewer, Sidewalks—City considering voting \$114,000 bonds; L. J. Voorhies, Consult. Engr., 642 Lacilla St., Baton Rouge. 1-24

Md., Sharpsstown—Water, Sewer—Town considering \$35,000 bond issue. 1-24

Md., Towson—Baltimore County Commrs., John R. Haut, Ch. Clk., receive bids Mar. 12 for \$500,000 4½% \$1,000 denom. public road serial bonds. 1-24

Miss., Hattiesburg—City votes Feb. 19 on \$25,000 bonds, to purchase site for library. 1-24

Mo., Jefferson City—House Roads and Highways Committee of Legislature, voted substitute enabling act to set aside \$40,000, 000 of \$75,000,000 road bond issue for proposed farm-to-market road system. 1-24

Mo., Smithton—School—Town voted \$25,000 bonds; receives bids soon for bonds. 1-24

Miss., Greenwood—Municipal Swimming Pool—City defeated \$50,000 bond issue. 1-17

N. C., Saluda—City receives bids for private sale, of \$175,000 \$1,000 denom. not to exceed 6% bonds; \$100,000, water; \$75,000, sewer; recently rejected bids. 1-24

N. C., Wilkesboro—Refunding—Wilkes County Commrs. authorized issuing \$15,000 notes. 1-24

Okla., Blackwell—School—City votes in spring on \$45,000 bonds. 1-24

Okla., Boise City—Paving—City plans \$60,000 bond election. 1-24

Okla., Ponca City—School—Bd. of Education, Jessie Bradley Esco, Clk., receives bids Feb. 12 for \$260,000 5% bonds. 1-3

S. C., Rock Hill—Water—City, W. P. Goodman, Mgr., receives bids Mar. 1 for \$300,000 bonds. 1-10

S. C., Roebuck—Roebuck School Dist. No. 18, Spartanburg County, considering \$8,000 bond issue. 1-24

Tenn., Bristol—Street—City Comm., J. K. Brown, Atty., considering \$20,000 bond issue. 1-24

Tenn., Chattanooga—City, Mayor Bass, plans selling \$125,000 incinerator bonds and airport bonds. 1-24

Tenn., Lewisburg—Courthouse—Marshall County plans \$100,000 bond election. 1-24

Tenn., Nashville—City, Hilary E. Howse, Mayor, considering \$200,000 bond election to complete McConnell airport. 1-24

Tenn., Springfield—Courthouse—Robertson County considering \$75,000 bond election. 1-24

Tex., Athens—Henderson County, A. B. Coker, County Judge, receives bids Mar. 2 for \$200,000 5% Consolidated Road Dist. No. 1 bonds. 1-24

Tex., Beaumont—Airport—City, J. W. Anderson, Mgr., considering \$100,000 bond election in April. 1-24

Tex., Beaumont—Jefferson County plans voting about Apr. 15 on \$6,000,000 bonds for courthouse, bridge across Neches River, highway, paving, intracoastal canal bridge, boulevard, other roads. 1-17, 1-31

Tex., Beaver—Municipal Hospital—City voted \$50,000 bonds. 1-17, 1-31

Tex., Brownsville—Cameron County, Oscar C. Dancy, Judge, votes soon on \$1,800,000 bonds to line with conc., canals and laterals. 1-17, 1-31

Tex., Clifton—Sewer—City voted \$30,000 bonds. 1-17, 1-31

Tex., Crosbyton—Road—Crosby County considering bond election. 1-17, 1-31

Tex., Donna—Bd. of Education, J. E. Wier, Sec., receives bids Feb. 21 for \$100,000 of \$300,000 issue 5% Donna Independent School Dist. bonds. Lately noted bids for \$300,000 bonds. 1-10

Tex., Fort Worth—Municipal Improvement—City, O. E. Carr, Mgr., receives bids Feb. 13 for \$1,500,000 bonds for improvements, including additions to sewage disposal plant, street sanitary sewers, bridge and water works extensions, etc. 1-31

Tex., Navasota—School—City Comm. considering \$150,000 bond election. 1-10

Tex., Portland—School—Town votes Feb. 9 on \$15,000 bonds; Hamon & Co., Archts., City Natl. Bank Bldg., Corpus Christi. 1-24

Tex., Valley Mills—Sewer—City voted \$30,000 bonds. 1-10

Va., Richmond—City Finance Committee, considering \$650,000 bond issue: \$400,000, sewer; \$100,000, water; \$150,000, gas works; George M. Whitfield, Dir. of Public Utilities. 1-10

W. Va., Charleston—Road—State, Howard M. Gore, Governor, plans selling \$20,000,000 of \$35,000,000 bonds voted in Nov., 1928. 1-10

W. Va., Middlebourne—Tyler County, McElroy road Dist., may vote on \$200,000 bonds. 1-10

Bond Issues Sold

Ala., Opelika—School—City, W. S. Harris, Clk., sold \$125,000 5% coupon bonds to Caldwell & Co., Nashville, Tenn., 97.35. 12-20

Fla., Orlando—Road—Orange County Commrs., B. W. Robinson, Clk., sold 5% bonds to Illinois Merchants Trust Co. and Harris Trust & Savings Bank, both Chicago, Ill., Detroit Trust Co. and Security Trust Co., both Detroit, Mich., and Braun, Bosworth & Co., Toledo. 1-17

Ky., Bowling Green—General Refunding—City, J. Q. Kirby, Clk., sold \$99,000 of \$100,000 issue 4½% bonds to Caldwell & Co., Nashville, Tenn., 100.097. 1-17

Mo., Clayton, St. Louis—Clayton School Dist. sold \$300,000 4½% bonds to syndicate composed of Ames, Emerich & Co., Chicago, Ill.; Smith, Moore & Co., First National Co., and Stifel, Nicolaus & Co., both St. Louis, \$4,668 premium. 1-17

N. C., Burlington—City sold \$171,000 5% bonds to Caldwell & Co., Nashville, Tenn., \$3,817 premium; \$146,000, water, sewer; \$25,000, street improvement. 1-10

N. C., Charlotte—Tax Anticipation—Mecklenburg County Commrs., T. M. Gresham, County Auditor, sold \$75,000 notes to Union National Bank of Charlotte. 1-17

N. C., Columbia—Water, Light—Town, W. H. McClees, Clk., sold \$25,000 6% bonds to Braun, Bosworth & Co., Toledo, Ohio, \$325 premium. 1-17

N. C., Greensboro—Bd. of Education of Greater Greensboro School Dist., E. D. Broadhurst, Chmn., sold \$1,300,000 4¾% bonds to syndicate represented by Greensboro Bank & Trust Co. at 101.03. 1-17

Okla., Tulsa—Park—City Comm. sold \$500,000, 4½% bonds to First National Co. and Exchange Trust Co., both Tulsa, and C. Edgar Honnold, Oklahoma City, par and accrued interest. 1-24

S. C., Greenwood—Sewer—City, Robt. J. Cartledge, Jr., Clk., sold \$50,000 5% \$1000 denom. bonds jointly to J. H. Hillsman & Co., Inc., Atlanta Trust Bldg., and Citizens & Southern Co. of Atlanta, both Atlanta, Ga., \$1,275 premium. 1-24

Tenn., Crossville—School—Cumberland County Court sold \$75,000 bonds to Little, Wooten & Co., Jackson, Tenn., par, accrued interest, \$550 premium. 1-24

Tenn., Knoxville—Permanent Improvement—City, L. M. Emert, Dir. of Finance, sold \$200,000 4% \$1000 denom. bonds to First National Bank of New York par, accrued interest and \$56 premium. 1-24

Tex., Jacksonville—Water, Sewer—City Council sold \$75,000 bonds to Caldwell & Co., Nashville, Tenn., par, accrued interest and \$605 premium. 11-1-1928

Tex., Lagrange—Street—City sold \$60,000 5% bonds to John Schuhmacher State Bank, Lagrange, \$200 premium. 1-17

Tex., Lubbock—Street—City Comm., W. H. Rodgers, Sec., sold \$200,000 bonds to Strannahan, Harris & Oatis, Inc., Toledo, Ohio, par, accrued interest and \$2,500 premium. 1-17

Tex., San Benito—City, J. Scott Brown, Mayor, sold \$30,000 street and sewer bonds to J. E. Jarratt, San Antonio, par, accrued interest and \$700 premium. 1-17

Tex., Whitesboro—Paving—City Council, W. R. Younger, Mayor, sold \$22,000 5% \$500 denom. bonds to Dallas Union Trust Co., Dallas, 99 and accrued interest. 1-31

Building and Loan Associations

Md., Hagerstown—Washington County Building & Loan Assn., capital \$3,000,000, incorporated; Grover C. Criley, 2003 Virginia Ave. 1-24

N. C., Winston-Salem—City Loans, Incorporated, of Winston-Salem, authorized capital \$250,000, chartered; C. T. Leinbach, 426 S. Main St. 1-24

New Financial Corporations

Ala., Aliceville—People's Bank, opened; A. H. Dabbs, Pres., Carrollton; Robert M. Poag, Cashier. 1-24

Ark., Siloam Springs—First National Bank, capital \$50,000, chartered; Geo. Tatum, Pres.; Connelly Harrington, Cashier. 1-24

La., Alexandria—Guaranty Mortgage and Securities Co., Inc., capital \$65,000, chartered; J. A. Bentley, Pres. 1-24

La., Alexandria—Bradford Mortgage and Securities Co., Inc., chartered; H. F. Bradford, 907 Guaranty Bldg. 1-24

La., New Orleans—Continental Credit Corp., capital \$105,000, chartered; J. Emile Jarreau, Pres., Maronic Temple. 1-24

La., Shreveport—American Securities Co., Inc., 600 Market St., capital \$50,000, chartered; Roy P. Oden, Pres. 1-24

Md., Baltimore—H. Krieger & Sons, Inc., Munsey Bldg., chartered; Israel and Joseph Krieger. 1-24

Md., Baltimore—First Industrial Holding Corp., First National Bank Bldg., chartered; Wallace Groves; deal in securities. 1-24

Md., Baltimore—Reliance Management Corp., First National Bank Bldg., chartered; Arthur W. Britton; deal in securities. 1-24

Md., Easton—Eastern Shore Investment Co., capital \$25,000, chartered; Louis F. McGronan, Violet Buedick, Margaret A. Bailey. 1-24

Mo., Kansas City—Central States Finance Corp., chartered; K. L. Day, C. B. Meyers, N. B. Anderson. 1-24

Mo., Normandy—Normandy State Bank, 7238 Natural Bridge road, capital \$25,000, chartered; William McDonald. 1-24

Mo., St. Louis—La-Ark Investment Co., chartered; W. R. Mayne, 506 Olive St. 1-24

Mo., St. Louis—Edster Investment Co., capital \$10,000, chartered; H. A. Hamilton, 208 N. Broadway. 1-24

N. C., Charlotte—Henderson Mortgage Co., capital \$150,000, chartered; P. C. Whitlock, Law Bldg.; Lena Biggers. 1-24

N. C., Greensboro—Gulford Securities Co., chartered; E. C. Green, Dixie Apt. 1-24

N. C., Hendersonville—Gem City Finance Co., Inc., authorized capital \$123,000, organized; Geo. N. Moland, Pres., Fifth Ave. 1-24

Tenn., Nashville—American Associates, Inc., organized; Paul M. Davis, Pres., Belle Mead Park; deal in bonds. 1-24

Tex., Cumby—First State Bank of Cumby, capital \$40,000, organized; Dr. W. E. Connor, Pres.; T. C. Mars, V.-P.; J. F. Weaver, Cashier; formed by merger of First National Bank with Cumby State Bank. 1-24

Tex., Hallettsville—People's State Bank, capital \$40,000, opened; M. I. Bozka, Cashier; John Kvinta, Clk. 1-24

Tex., Houston—American Trust Co., capital \$100,000, chartered; Floyd Ikard, 1316 E. Alabama St. 1-24

Tex., Neches—Neches State Bank, capital \$20,000, organized; J. E. Angly, Pres.; C. E. Williams, V.-P.; U. M. Brock, Cashier. 1-31

Va., Waverly—Finance Corporation of 1-24

FINANCIAL NEWS

Waverly, capital \$25,000, chartered; Robert W. Arnold, Pres.

W. Va., New Cumberland—J. A. Tope interested in establishing bank with \$100,000 capital.

Fidelity Finance and Loan Co., Paducah, Ky., plans increasing capital, \$25,000 to \$200,000.

First National Bank, H. Garrison, Pres., and Farmers State Bank, J. I. Staley, Pres., both Okla., consolidated; J. I. Staley, Pres.; J. I. Dyer, V.-P., and Managing Officer.

H. R. Warner, former Cashier, and J. W. Ratcliff, former Vice-President, of Vinita National Bank, Vinita, Okla., purchased controlling interest of bank; Dr. C. S. Neer will be Pres.; H. R. Warner, Cashier.

Baltimore Trust Co., Donald Symington, Pres., and National Union Bank of Maryland, P. L. Goldsborough, Pres., both Baltimore, Md., merged as Baltimore Trust Co.; Waldo Newcomer will be Chmn. of executive committee of combined institutions; Phillips Lee

Goldsborough, Chmn. of Bd.; Donald Symington continue as president of enlarged institution; \$85,000,000 resources.

People's Building and Loan Assn., El Paso, Tex., plans increasing capital, \$15,000,000 to \$50,000,000.

Dominion Securities Corp., Melville C. Branch, Pres., 1830 Monument Ave., Richmond, Va., plans increasing capital, \$2,000,000 to \$5,000,000.

Oak Cliff State Bank & Trust Co., R. Thomas, Pres., and Jefferson Bank and Trust Co., M. G. Young, Pres., both San Antonio, Tex., consolidated as Oak Cliff Bank & Trust Co., W. O. Connor, Pres., 106 W. Jefferson St.; \$110,000 capital and surplus; affiliated with Republic National Bank & Trust Co.

First and City National Bank & Trust Co., John G. Stoll, Pres., and Phoenix National Bank, W. H. Courtney, Pres., both Lexington, Ky., merged as First National Bank & Trust Co. of Lexington, capital \$1,000,000, W. H. Courtney, Pres.

City National Bank, Cowan Rodgers, Pres., Knoxville, Tenn., increased authorized capital to \$1,000,000.

Union Bank & Trust Co., Louisville, Ky., reported, plans increasing capital, \$100,000 to \$200,000.

Farmers & Merchants National Bank, C. G. Osburn, Chmn. of Bd., Baltimore, Md., plans opening Highlandtown Branch at 3418 Eastern Ave.; Charles C. Myers, Mgr.; Raymond F. Ehrhart, Asst. Mgr.

Mercantile Trust and Savings Bank of Dallas, absorbed Mercantile National Bank, Dallas, Tex.; plans increasing capital \$650,000 to \$2,000,000.

City Bank and Trust Co., J. A. Elkins, Pres., Houston, Tex., plans increasing capital, \$200,000 to \$300,000.

Interstate Bond Co., George P. Street, Pres., Atlanta, Ga., plans establishing office in Brunswick, Ga., with W. Jennings Butts, special agent for company.

First State Bank, J. T. Fortson, Pres., and First National Bank, W. A. Stockard, Pres., both Rice, Tex., merged as First State Bank of Rice, capital \$25,000, John Fortson, Pres.

Young Men's Building and Loan Assn. of Mayfield, Ky., T. P. Smith, Pres., plans increasing capital, \$1,500,000 to \$5,000,000.

\$12,150,000 FOR CONCRETING IRRIGATION CANALS.

Hidalgo District to Reclaim 34,000 Acres—Large Quantities of Cement to Be Used.

Harlingen, Tex.—With bond issues already voted by a number of irrigation districts in the lower Rio Grande Valley totaling more than \$6,000,000, and other districts to vote soon on bonds, it is estimated that \$12,150,000 will be available for concreting canals and laterals. An election will be held February 16 in the La Feria Irrigation District on a bond issue of \$1,600,000, and on February 19 in the Hidalgo Irrigation District on a bond issue of \$2,750,000. Two new districts have been formed in Cameron County and it is expected that an election will soon be called on a bond issue of \$1,800,000.

These funds may be further increased to carry out similar improvements in other irrigation districts in the Valley. The Hidalgo district plans to reclaim 34,000 acres of virgin land, obtaining its water supply from the United Irrigation Co. It will concrete approximately 140 miles of its canals and construct 40 miles of pipe line. With the present system it is estimated that only about 30 per cent of the water turned into the canals and ditches reaches the fields, but with concrete lining the loss will only be from 5 to 10 per cent from the time it enters the intake at the Rio Grande to the time it is used for the crops. The cost of concreting the systems is estimated at \$80 per acre.

Large quantities of cement will be required for the work. The reclaimed area in the Lower Rio Grande Valley is being gradually pushed back from the river, it is said, and water is now lifted to second and third benches of the Valley, extending for nearly 30 miles into the interior. With the construction of a contemplated project involving a dam near Roma, about 175 miles from the mouth of the river, it is thought that water may be run by gravity over a big area of arable land, from 20 to 25 miles from the river.

Tennessee Sells \$1,500,000 Bonds and \$1,500,000 Notes.

Nashville, Tenn.—An issue of \$1,500,000 Smoky Mountain Park bonds has been sold by the State of Tennessee to the Harris Trust & Savings Bank, the Illinois Merchants' Trust Co. and the William R. Compton Co., all of Chicago, on a bid of 100.154 for the bonds as 4½s, maturing serially. An issue of \$1,500,000 5¼ per cent one-year notes was sold by the State to the First National Bank and Salomon Bros. & Hutzler, both of New York, at par and premium of \$150.

For Control of Western Maryland Railway.

Washington, D. C.—The Pittsburgh & West Virginia Railroad, of which F. E. Taplin, Cleveland, Ohio, is president, has applied to the Interstate Commerce Commission for authority to obtain control of the Western Maryland Railway, as a part of a plan for a fifth trunk line. Authority to obtain control of the Wheeling & Lake Erie Railroad has previously been sought by the Pittsburgh & West Virginia and it has now asked that both applications be considered at the same time. Control of the Western Maryland is held by the Baltimore & Ohio Railroad, which is said to have acquired it with a view to a consolidation plan of its own. The Western Maryland has outstanding 508,640 shares of common stock, 177,420 shares of 7 per cent cumulative first preferred stock and 85,610 shares of 4 per cent non cumulative second preferred stock. It is understood that the Pittsburgh & West Virginia plans to gain control of the Western Maryland by a purchase of a majority of its stock and ask the Interstate Commerce Commission to fix the minimum price it should pay.

In connection with the application of the Pittsburgh & West Virginia for authority to acquire control of the Western Maryland, it is interesting to note that the Baltimore & Ohio Railroad soon may take action for the consolidation of several railroads, in which it is likely that the Western Maryland, Reading and Central of New Jersey will be involved, with a suggestion that the Wabash, the Detroit, Toledo & Ironton, the Chicago, Indianapolis & Louisville and the Buffalo & Susquehanna railroads may also figure. George M. Shriver, vice-president of the Baltimore & Ohio Railroad, says that just when the contemplated application may be completed and filed cannot now be stated.

Plans Progressing for \$2,500,000 Art Gallery.

Kansas City, Mo.—Working drawings are expected to be completed soon for the \$2,500,000 William Rockhill Nelson Gallery of Art here and actual construction may begin in the late spring or early summer. The Atkins Museum of Fine Arts will occupy the east wing of the proposed building. Wight & Wight, Kansas City, are architects for the structure. The trustees also plan to develop the Oak Hall grounds in an elaborate manner.

Rock Island Proposes Texas Line.

Paducah, Tex.—Application has been made by the Rock Island Lines, Chicago, for authority to build a railway line from Groom to Paducah, the former town being on the main line of the Rock Island, about 10 miles northeast of Amarillo.